STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☑
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ML46664	6. SURFACE: State
1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐	7. IF INDIAN, ALLOTTEE OR TRIBE NAME:
B. TYPE OF WELL: OIL ☑ GAS ☐ OTHER _____ SINGLE ZONE ☑ MULTIPLE ZONE ☐	8. UNIT or CA AGREEMENT NAME: Cactus Rose Unit
2. NAME OF OPERATOR: NAE, LLC	9. WELL NAME and NUMBER: CRU 16-14-2218
3. ADDRESS OF OPERATOR: 110 16th St., Suite 1220 CITY Denver STATE CO ZIP 80202 — PHONE NUMBER: (303) 327-7145	10. FIELD AND POOL, OR WILDCAT: ~~undesignated~~ Wildcat
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 685' FSL 685" FWL 594137X 4305158 38.892408 -109.945684 AT PROPOSED PRODUCING ZONE: same	11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 16 22S 18E s
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 17 miles east of Green River, Utah	12. COUNTY: Grand — 13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET): 685'	16. NUMBER OF ACRES IN LEASE: 657.50 — 17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET): n/a none	19. PROPOSED DEPTH: 4,100 — 20. BOND DESCRIPTION: UTB000296
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 4473' GL ungraded	22. APPROXIMATE DATE WORK WILL START: 3/1/2008 — 23. ESTIMATED DURATION: 20 days

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
20"	16" OD			40	3 yards	Ready Mix		
12-3/4"	8-5/8"	J-55	24#	400	Howco Rockies LT	160 sxs	2.08	12.8
7-7/8"	5-1/2"	N-80	17#	1,375	Howco Rockies LT	300 sxs	2.08	12.8
				2,725	Howco Rockies LT	600 sxs	2.08	12.8

25. **ATTACHMENTS**

CONFIDENTIAL

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
- ☑ COMPLETE DRILLING PLAN
- ☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Robert W. Peck — TITLE Landman-Permitting Agent

SIGNATURE Robert W. Peck — DATE 2/22/2008

(This space for State use only)

API NUMBER ASSIGNED: 43-019-31571

Approved by the
Utah Division of
Oil, Gas and Mining

APPROVAL:

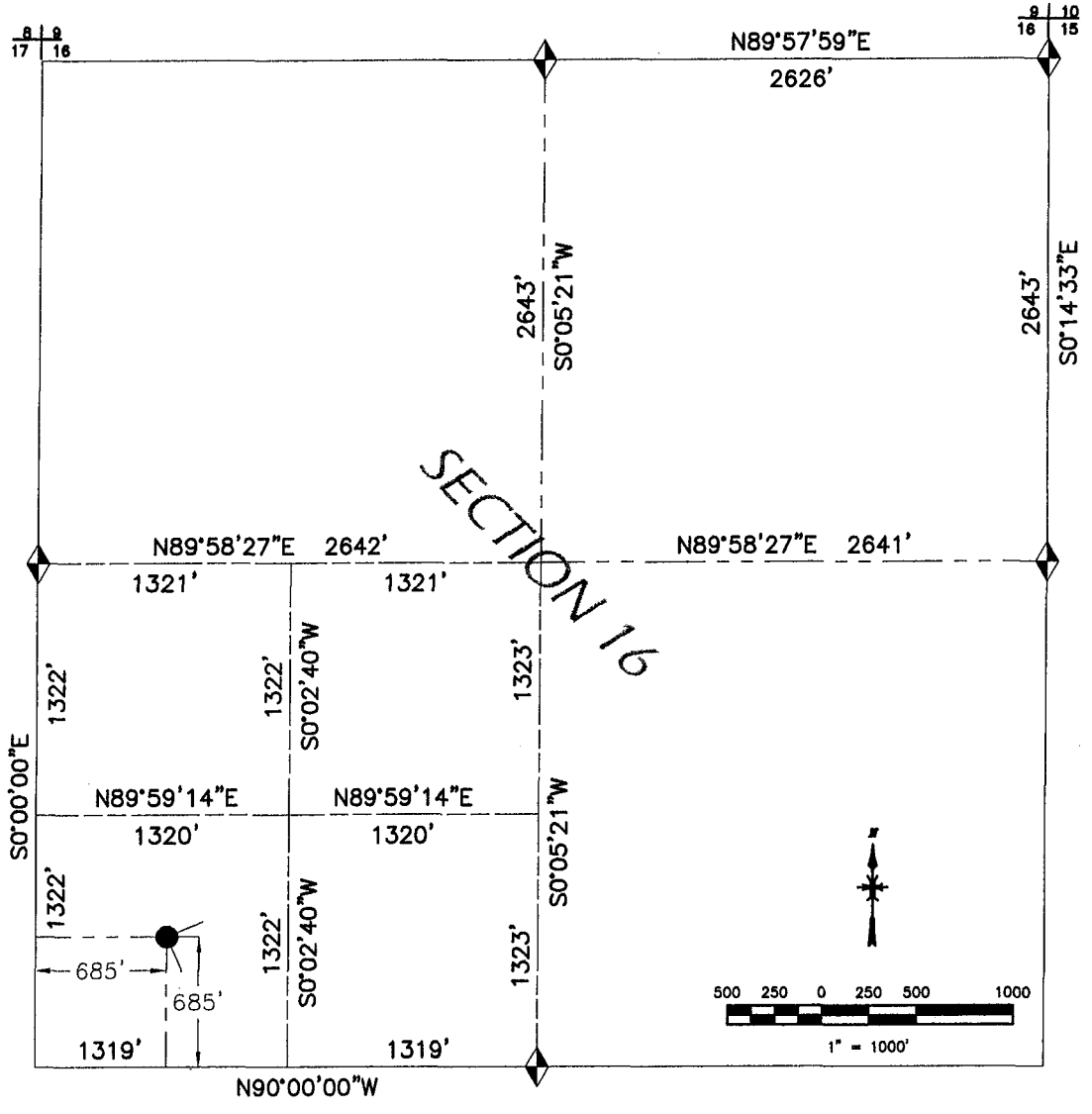
Date: 04-24-08

By: _____

(See Instructions on Reverse Side)

RECEIVED
FEB 26 2008
DIV. OF OIL, GAS & MINING

(11/2001)



BASIS OF BEARING:

True North Based Upon GPS Observations.

BASIS OF ELEVATION:

WGS 84 Autonomous GPS Position.

WELL HEAD LOCATION NAD83:

Grid Coordinates
Northing: 4305373.540
Easting: 591367.449
Datum Elevation 1363.456 M

NOTES:

All dimensions as shown are based on the approved USGLO plat.

There are no visible improvements within two-hundered (200) feet of the wellhead.

The surface ground is range land.

GRADING NOTES:

Existing Surface at Well Head location: 4395.69
Proposed Surface at Well Head location:: 4392.74
RAW VOLUMES: 7.285 C.Y. Cut, 6,428 C.Y. Fill

Date of Survey: January 21, 2008

Date of Plat: February 18, 2008

FOUND STONE

WELL SITE

PROFESSIONAL ENGINEER
2-18-08
STEVEN N. STEVENSON
6550[illegible]6202
STATE OF UTAH

ENGINEERING DESIGN SERVICES BY
DEL-MONT CONSULTANTS, INC.
ENGINEERING • SURVEYING • PLANNING
125 Colorado Ave. • Montrose, CO 81401 • (970) 249-2251 • (970) 249-2342 fax
www.del-mont.com • service@del-mont.com

FIELD SURVEYING SERVICES BY
SOUTHWEST LAND SURVEYING LLC
1315 Snowdon St., Silverton, CO. 81433
(970) 387 0600...Silverton (970) 874 2880...Delta
(970) 874-0883...fax EMAIL: kennsch@aol.com

WELL PAD TEMPLATE (400x300) 3.1 SIDES
RIG TEMPLATE BLACKHAWK (BLACK GOLD EQUIPMENT NT RIG 20X)

DESIGNED BY	SCALE
SNS	AS NOTED
CHECKED BY	FILE NAME
SNS	08021C_CRU_16-14-18-22

DRILL PAD LOCATION MAP

CRU 16-14-22-18

T22S, R18E, Section 16; S,L,B&M Grand County, Utah

D.M. JOB NO.	08021
DATE ISSUED:	2008-02-18
SHEET:	1

NORTH AMERICAN

303-327-7169 303-534-1400 110 16th Street, Suite 1220 • Denver, Colorado 80202 • www.naexp.com

Utah Division of Oil, Gas and Mining
Diana Mason
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

March 21, 2008

Dear Diana,

This letter is to advise you that NAE, LLC recently resurveyed the well location for the well CRU 16-14-2218. The well location is in T22S-R18E, Sec. 16, SWSW, of the SLM. Please see the attached documents and place them in the APD package.

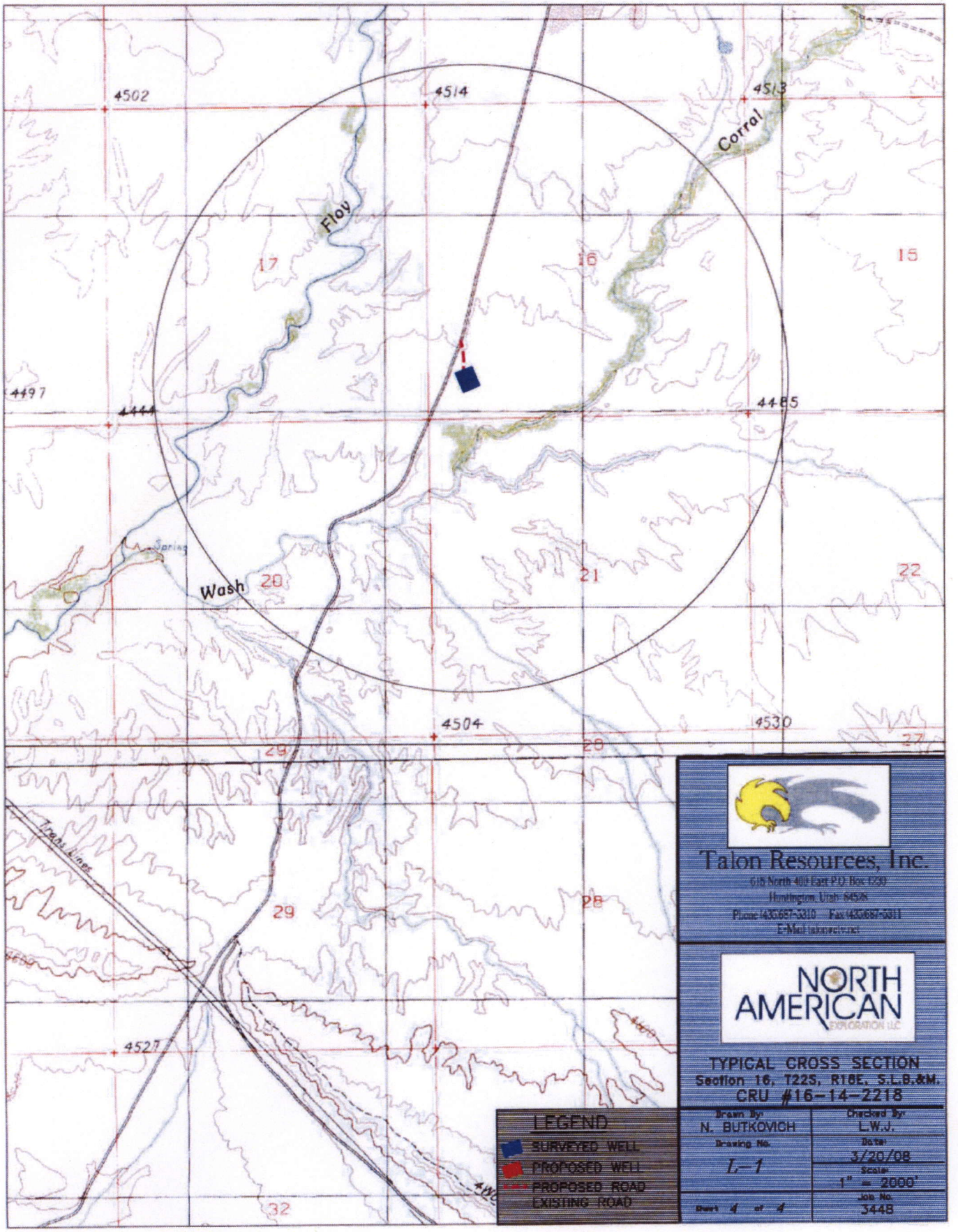
The documents are as follows:

1. Typical Cross Section C-1
2. Typical Cross Section L-1
3. Location Layout A-2

Please feel free to contact me with any questions or concerns that you may have. My phone # is 303-327-7144.

Sincerely,
North American Exploration LCC

Erik Larsen
Land/Environmental Specialist



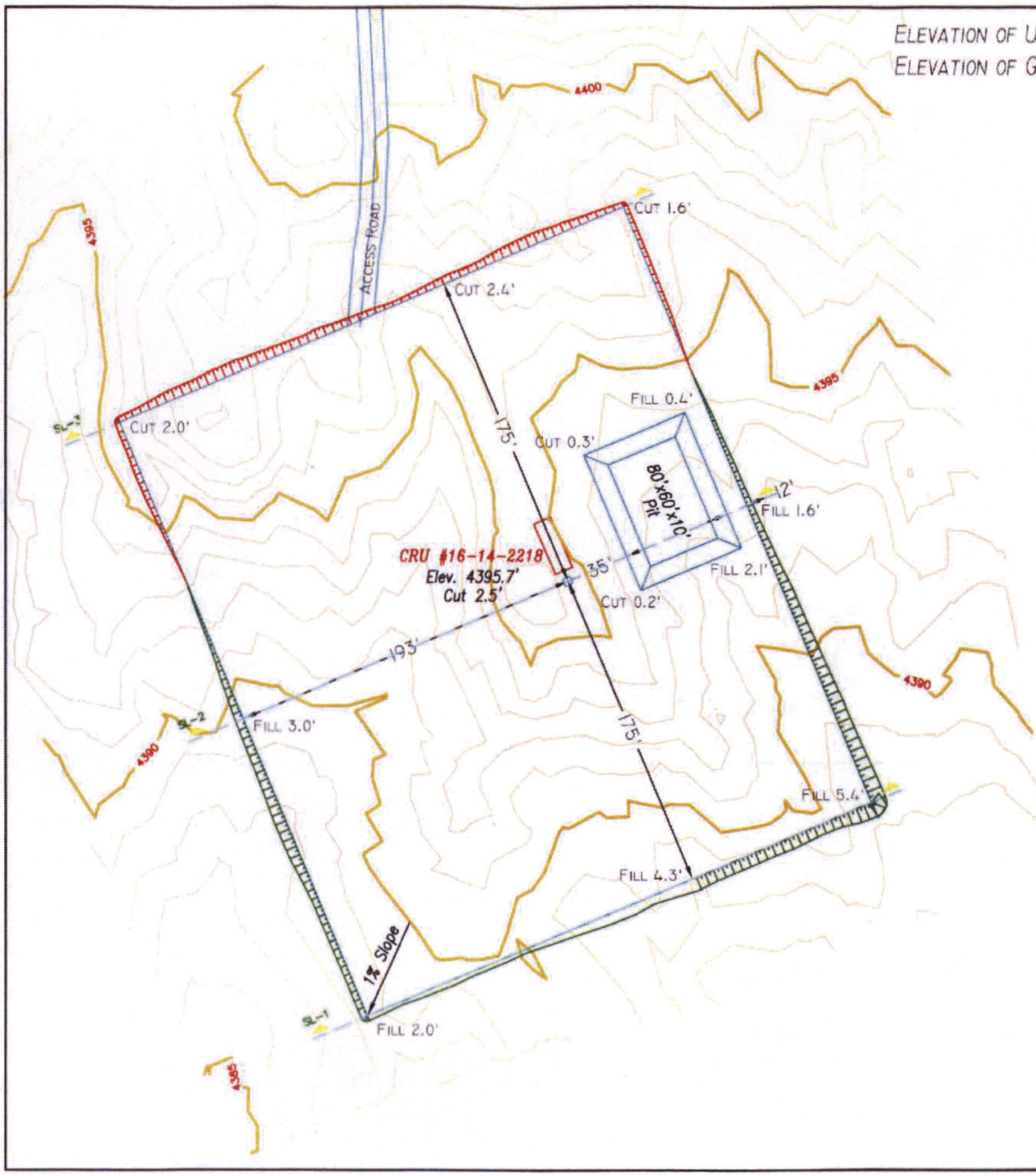
Talon Resources, Inc.
618 North 400 East P.O. Box 600
Huntington, Utah 84528
Phone (435)687-3310 Fax (435)687-5011
E-Mail talon@etv.net

NORTH AMERICAN EXPLORATION LLC

TYPICAL CROSS SECTION
Section 16, T22S, R10E, S.L.B.&M.
CRU #16-14-2218

Drawn By:	Checked By:
N. BUTKOVICH	L.W.J.
Drawing No.	Date:
L-1	3/20/08
Sheet 4 of 4	Scale: 1" = 2000'
	Job No. 3448

ELEVATION OF UNGRADED GROUND AT LOCATION STAKE = 4395.7'
ELEVATION OF GRADED GROUND AT LOCATION STAKE = 4393.2'



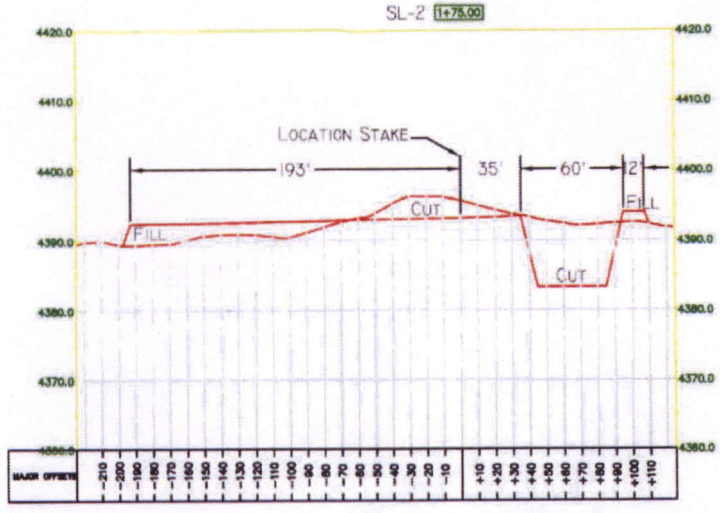
N

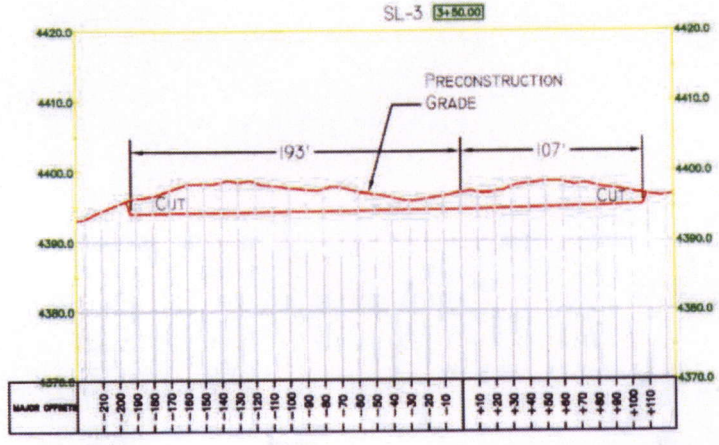
Talon Resources, Inc.
615 North 400 East P.O. Box 1230
Huntington, Utah 84528
Phone (435)687-5310 Fax (435)687-5311
E-Mail talon@etv.net

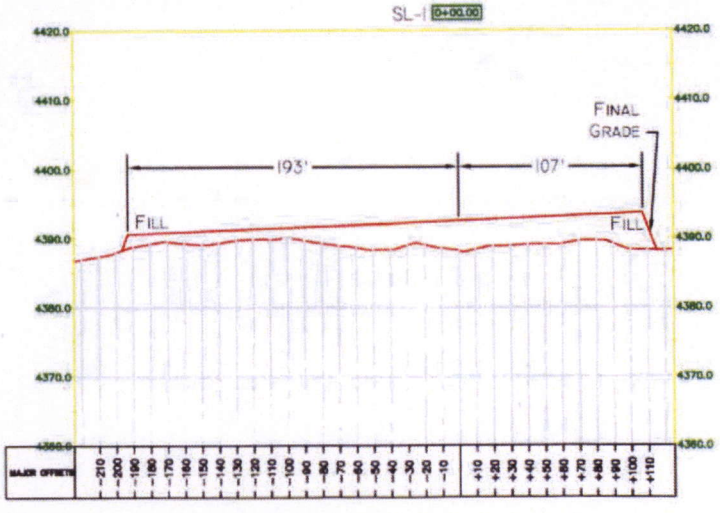
NORTH AMERICAN EXPLORATION LLC

LOCATION LAYOUT
Section 16, T22S, R18E, S.L.B.&M.
CRU #16-14-2218

Drawn By: N. BUTKOVICH	Checked By: L.W.J.
Drawing No. A-2	Date: 3/20/08
	Scale: 1" = 80'
Sheet 2 of 4	Job No. 3448







1"=10'
X-Section Scale
1"=40'

ALL SLOPES = 1 1/2 : 1
(EXCEPT PIT)
PIT SLOPE = 1 : 1

APPROXIMATE YARDAGES

(6")TOPSOIL STRIPPING = 1,945 CU. YDS.
TOTAL CUT (INCLUDING PIT) = 4,070 CU. YDS.
TOTAL FILL = 3,925 CU. YDS.

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Phone (435)687-5310 Fax (435)687-5311
E-Mail talon@etv.net

NORTH AMERICAN EXPLORATION LLC

TYPICAL CROSS SECTION
Section 16, T22S, R18E, S.L.B.&M.
CRU #16-14-2218

Drawn By: N. BUTKOVICH	Checked By: L.W.J.
Drawing No. C-1	Date: 3/20/08
	Scale: 1" = 100'
Sheet 3 of 4	Job No. 3448

North American Exploration, LLC
Cactus Rose Unit CRU 16-14-2218
SWSW Sec. 16, T.22S., R.18E.
Grand County, Utah
Lease # ML 46664

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Directions to the CRU 16-14-2218 Well Pad:

As proceeding west on I-70 from Moab, Utah: Leaving the interstate, take exit #175. Turn left and go over I-70 on the overpass. The road is asphalted and curves to the right, then left at .2 mile. This is the ranch exit #175 or A.K.A. County Road 147. Proceeding in a southerly direction along this road for 2 miles to the well site access road which will be on the left. Turn left onto well site access road 300' to the proposed well pad.

Total distance from exit #175 stop sign 2.2 miles in a southerly direction.

2. Planned Access Roads:

The proposed access road will be approximately 300 feet of new construction (ON-LEASE). The balance of the ON-LEASE road is the Ranch Exit #175, A.K.A. County Road 147 and will not have to be improved. No new road will have to be built OFF-LEASE. Please refer to Topo Map for the takeoff point for the new ON-LEASE road construction.

The proposed access road will be utilized to transport personnel, equipment and supplies to and from the proposed well site during drilling, completion and production operations. The road will be utilized year round.

The access road will be crowned 2% to 3%, ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet right-of-way. Maximum grade of road is 5% or less. Graveling or capping the roadbed will be performed as necessary to provided a well constructed, safe road. No fence crossings, culverts, turnouts, cattle guards or major cuts and fills are required. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: *Surface Operating Standards for Oil and Gas Exploration and Development. 1989.*

The road surface and shoulders will be kept in a safe usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during

operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches and the turnouts kept clear so that snowmelt will be channeled away from the road.

3. Location of Existing Wells within a One-Mile radius:

There are no wells located within a one (1) mile or greater radius of the proposed location.

4. Location of Existing and/or Proposed Facilities:

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e. production tanks, produced water tanks and/or heater treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank and be independent of the back cut.

All permanent (on site for six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the rocky Mountain Five State Inter-Agency Committee

All facilities will be painted within 6 months of installation. The color shall be Desert Tan. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

No pipelines are located or planned at this time

Upon plugging and abandonment, the disturbed area will be re-contoured and restored as near as practical to the original condition. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

5. Location and Type of Water Supply:

Water will be hauled to the location over the roads marked on the enclosed maps. The drilling operator will acquire non-potable water on an as-need basis from local sub-contrators.

Operator: Dalvo, Vernal, UT
Operator No.: 04271

No water well is to be drilled on this lease.

6 Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized from location and access road construction.

Any gravel will be obtained from a commercial source; however, gravel sized rock debris associated with location and access road construction may be used as access road surfacing material.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in an evaporative pit.

The reserve pit well be constructed on the location and will not be located within natural drainage, where a flood hazard exits or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, brake or allow discharge of liquids.

The reserve pit will be lined with ¼ felt and a minimum of 16 mm plastic with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

A chemical portable toilet will be furnished with the drilling rig. The toilet will be replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

Garbage, trash and other waste materials will be collected in a portable, self-contained, fully enclosed trash container during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash container will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well.

Produced oil will be stored in an oil tank and then hauled by truck to a crude purchaser facility. Any produced water from the proposed well will be contained in an evaporative pit

8. Ancillary Facilities:

During drilling operations, approximately 20 days, the site will be a manned camp. Three or four additional trailers will be on location to serve as the crews' housing and eating facilities. These will be located on the perimeter of the pad site within the topsoil stockpiles. Refer to Sheet 4.

9. Well Site Layout: (Refer to Sheets #2, #3, and #4)

The attached Location Layout Diagrams describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpiles(s).

Please see the attached diagram for rig orientation and access roads.

The top soil will be windrowed rather than piled. It will be reseeded and track walker at the time the location is constructed. Seeding will be with the determined during the onsite. (Refer to "Seed Mixture for Windrowed Top Soil Will included:" following herein.

The top soil removed from the pit area will be stored separately and will not be reseeded until the pit is reclaimed.

All pits shall be fenced to the following minimum standards:

a. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
b. The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches over the new wire. Total height of the fence shall be at least 42 inches.
c. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
d. Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet.

e. All wire shall be stretched by, using a stretching device, before it is attached to corner posts.
f. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.
g. Location size may change prior to drilling the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling, the location will be re-surveyed and a Form 9 will be submitted.

10. Plans for Surface Reclamation:

Producing Location:

a. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, materials, trash and debris not required for production.
b. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 40 CFR 3162.7.
c. Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.
d. The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximated natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.
e. To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface 3 feet above surrounding round surface to allow the reclaimed pit area to drain effectively.
f. Upon completion of back filling, leveling and re-contouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

i. Abandoned well sites, roads and other disturbed areas will be restored as nearly as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions and re-establishment of vegetation as specified.
ii. All disturbed surfaces will be re-contoured to the approximated natural contours with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

Seed Mixture for Windrowed Top Soil Will Include:

To be provided by the State of Utah.

11. Surface Ownership: Location and Access Route:

Wellsite: State of Utah

Access: State of Utah

12. Other Information

On-site Inspection for Location, Access and Pipeline Route:

The on-site was conducted February xx, 2008.

Special Conditions of Approval:

All production equipment shall be painted Desert Tan.

Archeology:

a. A Cultural Resource Inventory Report is pending and to be prepared by Grand River Institute, Grand Junction, CO.

Paleontology:

a. A Paleontology Reconnaissance Report is pending and to be prepared by Uinta Paleontological Associates, Inc, Vernal, UT.

If during operations, any archaeological or historical sites, or any objects of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

13. Lessee's or Operator's Representatives:

North American Exploration, LLC Representative:

Erik Larsen
Land & Environmental Specialist
North American Exploration, LLC
110 16th Street, Suite 1220
Denver, Colorado 80202
Office Tel: 303-327-7144
Fax Tel: 303-534-1400
elarsen@naexp.com

Permitting Agent for North American Exploration, LLC:

Robert Peck
Landman – Permitting Agent
Wolcott, LLC
729 Bookcliff Ave., Unit B
Grand Junction, Colorado 81501
Office Tel: 970-241-7146 x309
Fax Tel: 970-241-2039
rpeck@wolcottllc.net

North American Exploration, LLC
Cactus Rose Unit CRU 16-14-2218
SWSW Sec. 16-T22S- R18E
Grand County, Utah
Lease # ML 46664

ONSHORE ORDER 1 - DRILLING PLAN

1. **Estimated Tops of Geological Markers:**

Formation	Depth (K.B.)
Mancos Shale	Surface
Dakota Silt	1400'
Dakota Sandstone	1550'
Morrison Brushy Basin Member	1800'
Morrison Salt Wash Member	2030'
Moab Tongue	2396'
Entrada	2534'
Carmel	2716'
Navajo	2830'
Kayenta	3460'
Wingate	3651'
Chinle	3869'

2. **Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals: (per Proposed Wellbore Construction Diagram attached)**

Formation	Depth (K.B.)	Substance
Dakota Sandstone	1550'	Oil/Gas/Water
Morrison Brushy Basin Member	1800'	Oil/Gas/Water
Morrison Salt Wash Member	2030'	Oil/Gas/Water
Moab Tongue	2396'	Oil/Gas/Water
Entrada	2534'	Oil/Gas/Water
Carmel	2716'	Oil/Gas/Water
Navajo	2830'	Oil/Gas/Water
Kayenta	3460'	Oil/Gas/Water
Wingate	3651'	Oil/Gas/Water
Chinle	3869'	Oil/Gas/Water
Estimated TD		4100'

3. **Pressure Control Equipment: (5000 psi schematic attached)**

A. Type: Eleven (11) inch double gate hydraulic BOP with eleven (11) inch annular preventer on 5,000 psi casinghead, with 5,000 psi choke manifold equipped per the attached diagram. BOPE as specified in *Onshore Oil & Gas Order Number.*

B. A PVT, stroke counter and flow sensor will be installed to check for flow and monitor pit volume.
C. Pressure Rating: 5,000 psi BOPE.
D. Kelly will be equipped with upper and lower Kelly valves.
E. Testing Procedure:

Annular Preventer

At a minimum, the annular preventer will be pressure tested to 50% of the stack rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

Blow-Out Preventer (Pipe Rams and Blind Rams)

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

E. Miscellaneous Information:

The blowout preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2.*

4. Proposed Casing & Cementing Program:

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set (MD)
20"	16" O.D.	0.25" w.t.			40' (BGL)
12-1/4"	8-5/8" O.D.	24#	J-55	ST&C	0 – 400' (KB) est.
7-7/8"	5-1/2"	17#	N-80	LT&C	0 – 4,100' (KB) est.

The surface casing will have guide shoe, 1 joint, andfloat collar. Centralize the shoe joint with bowspring centralizers in the middle and top of the joint and then place bowspring centralizers on on every other collar to surface (~6 centralizers total). Thread lock guide shoe and bottom of float collar.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Depth (MD)	Casing	Collapse(psi)/SF	Burst (psi)/SF	Tension(mlbs)/SF
40' (GL)	16" OD	NA	NA	NA
400' (KB)	8-5/8", 24#/ft, J55, STC	1370/7.65(a)	2950/1.60(b)	244M/25.42(c)
4100' (KB)	5-1/2", 17#/ft, N-80, LTC	6280/2.95 (d)	7740/3.95 (e)	348M/4.99 (f)

(a.) based on full evacuation of pipe with 8.6 ppg fluid on annulus
(b.) based on 8.6 ppg gradient with no fluid on annulus
(c.) based on casing string weight in air
(d.) based on full evacuation of pipe with 10.0 ppg fluid on annulus
(e.) based on 9.2 ppg gradient, gas to surface, with no fluid on annulus, no gas gradient
(f.) based on casing string weight in air

PROPOSED CEMENTING PROGRAM

Surface Casing (if well will circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
8-5/8"	Lead	1516	Howco Rockies LT cement + 0.25 pps Poly-E-Flake	160	100%	12.8	2.08

A cement top job is required if cement fallback is greater than 10' below ground level. Top job (weight 15.8 ppg, yield 1.15 ft^3/sx) cement will be premium cement w/ 3% $CaCl_2$.+ 0.25 pps celloflake. Volume as required.

Production Casing - Cemented TD to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
5-1/2"	Stage 1	1375	Howco Rockies LT + 0.25 pps celloflake	300	40% over caliper	12.8	2.08
5-1/2"	Stage 2	2725	Howco Rockies LT + 0.25 pps celloflake	600	40% over caliper	12.8	2.08

Cement volumes for the 5-1/2" Production Casing will be calculated to provide a top of cement to surface. Cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole and adding 40% excess. Actual cement types may vary due to hole conditions and cement contractor used.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. **Drilling Fluids (mud) Program:**

Interval (MD)	Mud Weight	Fluid Loss	Viscosity	Mud Type
0' – 40' (KB)	<8.4	No cntrl	28	Water
40'-400' (KB)	8.4-8.6	No cntrl	28-36	FW Gel/Lime
400'-4100' (KB)	8.4-9.0	8 - 10 ml	32-42	Gel/Polymer Fresh Water Base

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

6. **Evaluation Program:**

Tests: No tests are currently planned.

Coring: No cores are currently planned.

Samples: Two (2) sets of cleaned, dried, labeled formation samples will be taken not less than every 20' from the top of the Dakota Sandstone (~1550' TVD RKB) to Total Depth. One (1) set of samples will be sent to the Utah Division of Oil, Gas and Mining at the completion of the well.

Logging

Dual Induction – Triple Combo (CNL/FDC/DIL/GR/CAL)

- Cement Bond Log / Gamma Ray:
  TD to Base of Surface Casing or Top of Cement if below Base of Surface Casing

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on openhole log analysis. The drill site, as approved, will be sufficient size to accommodate all completion activities.

7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No H_2S has been encountered or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 1,834 psi (calculated at 0.52 psi/ft of hole) and maximum anticipated surface pressure equals approximately 932 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. Anticipated Starting Dates:

- Anticipated Commencement Date- Within one year of APD issue.
- Drilling Days- Approximately 15 days
- Completion Days - Approximately 10 days
- Anticipate location construction within 30 days of permit issue.

9. Variances:

None anticipated

10. Other:

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining and the Bureau of Land Management upon their receipt.

Single Shot directional surveys will be dropped on every bit trip or will be run on slick line not less than every 1000' of hole drilled.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

TAKE PRIDE IN AMERICA

C. Seare
Hydro

IN REPLY REFER TO:
3104
(UT922)

JAN 14 2008

DECISION

Obligor:
NAE, LLC
369 Florida Hill Road
Ridgefield, CT 06877

Bond Amount: $25,000

Bond Type: Statewide Oil and Gas

BLM Bond No.: UTB000296

Statewide Personal Oil and Gas Bond Accepted

On January 14, 2008, this office received an executed bond form and cashier's check in the amount of $25,000. The bond has been examined, found to be satisfactory, and is accepted January 14, 2008, the date of filing.

The funds will be retained in a suspense account until all terms and conditions of your Federal leases have been fulfilled or until a satisfactory replacement bond has been accepted, at which time a refund of the cash deposit will be authorized.

The bond will be maintained by this office. The bond constitutes coverage of all operations by or on behalf of the obligor on Federal leases in the State of Utah and where the obligor has interest in, or responsibility for operations on leases issued under the authority of any of the Acts cited on the bond form. Please note that Federal leases do not include Indian leases.

Terry Catlin

for Becky J. Hammond
Chief, Branch of Fluid Minerals

bcc: Moab and Vernal Field Office
Fluid Minerals, Al McKee
Reading File
CSeare:cs (01/14/08)NAE

CRU 16-14-2218

Proposed Wellbore Construction Diagram

Rig _____

Well: CRU 16-14-2218
Well Type: Vertical
Surface Location: xxx' FSL, xxx' FWL, Sec.16, T22S, R18E
Latitude / Longitude:
Bottom Hole Location: xxx' FSL, xxx' FWL, Sec.16, T22S, R18E
Permitted TD: 4100'
Author-Version-Date: WDL - Rev 0 - 09 February 2008

AFE Number: XXXX
Field: Cactus Rose Unit
API Well Number: xx-xxx-xxxx
Elevation (ft): ~4480'
KB to GL (ft): ~10'
Objectives: Drill & evaluate Wingate Formation.

Geology Logs	BOP Testing Requirements	Casing and Cement	Depth (ft, MD)	Hole Size	Bit Run	Directional and Mud Data
Surface is the Mancos Shale		8.625" 5M Cameron head		40' of 16" 0.25" w.t. conductor in 20" hole with 6' diameter x 4' deep cellar		
	Cmt to surface is BLM Requirement	Surface Casing Cement: Pump 10 bbl water spacer. Pump 160 sx (2.08 cf/sx) mixed @ 12.8 ppg Howco Rockies LT cement + 0.125 #/sx Poly-E-Flake. 100% excess, cement designed to return to surface. Perform top job w/ Premium cewment + 2% CaCl2 @ 15.8 ppg, if necesary. Test casing to 1500 psi / 10 min prior to drill out. 8 5/8", 24#, J55, STC (0-400')	400' MD/TVD	12 1/4" Hole	Bit #1 12.25" Use retip bit or air hammer bit if drilled with air.	Preferred Procedure: FW Gel/Lime spud mud + hi-vis PHPA Sweeps Use fibrous LCM (sawdust, cedar fiber) to control LC "Dry drilling" should be considered if LC persists. Alternative 1: Preset surface (e.g., Lange) utilizing air/mist & concentric DP to eliminate LC concerns. Alternative 2: Drill surface with conventional trailer mounted rig w/ air compressor package, air hammer & air/mist drilling fluid. Offset well (Little Grand 35-2 Sec 35 T22S-R18E) drilled to 338' w/ air. Stuck on TOOH to run casing. Drop inclination survey prior to POOH to run casing.
Dakota Silt @ 1400' TVD Dakota Sandstone @ 1550' TVD Morrison Brushy Basin @ 1800' TVD Morrison Salt Wash Member @ 2030' TVD Moab Tongue @ 2396' TVD	RU 5M BOP stack per BLM requirements w/ pipe rams, blind rams and annular preventer. Test Rams/choke to: 250 psi / 10 min 5000 psi / 10 min Test Annular to: 1500 psi / 10 min			7-7/8" Hole	Bit #2	(No Formation Integrity Test required) Drilling Fluids for Production Hole: Gel/Polymer Water Base Mud. Mud up with prehydrated gel/polymer (PHPA) mud in fresh water. Run Hi-Viscosity gel sweeps every 200-300 ft. and/or for tight hole. Utilize Fed Pac-R for FL control and Fed Rheosmart for rheology control. Drop survey tool on TFNB.
Entrada @ 2534' TVD Carmel @ 2716' TVD Navajo @ 2830' Kayenta @ 3460' Wingate @3651' Chinle @ 3869'	Longstring Cement: Pump 20 bbl FW spacer. Mix all blends 40% excess over caliper volume. Volumes shown are based on 10-1/2" hole w/ cmt to surface. 1st Stage: Pump 300 sx Howco Rockies LT Cement (2.08 cf/sx) + 0.125 #/sx Poly-E-Flake mixed @ 12.8 ppg. Displace w/ FW. Open Stage Tool. 2nd Stage: Pump 20 bbl FW spacer. Pump 600 sx Howco Rockies LT Cement + 0.125 #/sx Poly-E-Flake mixed @ 12.8 ppg. Displace w/ ~63 bbls FW.		Stage Collar @ 2725'		Bit #3	Drop survey tool on TFNB.
					Bit #4	
TD 4100' MD/TVD		5-1/2", 17#, N80, LTC (0'-4100')	4100' MD/TVD			Drop survey tool on TOOH for logs.

APPROVALS

Prepared By: _____ February 11, 2008 Date

Approved By: _____ Date

PALEONTOLOGY EVALUATION SHEET

PROJECT: NORTH AMERICAN EXPLORATION - Well- Cactus Rose Unit 16-14-2218.

LOCATION: Approximately 13 miles east southeast of Green River, Utah. SW SW, Section 16, T22S, R18E, S.L.B.&M., Grand County, Utah

OWNERSHIP: PRIV[ ] STATE[X] BLM[ ] USFS[ ] NPS[ ] IND[ ] MIL[ ] OTHER[ ]

DATE: February 29, 2008

GEOLOGY/TOPOGRAPHY: Upper Member (Blue Gate) of the Mancos Shale. The well pad sits on a south facing slope of weathered Mancos Shale. Small drainages and ridges running to the south.

PALEONTOLOGY SURVEY: YES [X] NO Survey [ ] PARTIAL Survey [ ]
Surveyed well pad and area beyond where construction impacts might occur. Short access road was also surveyed.

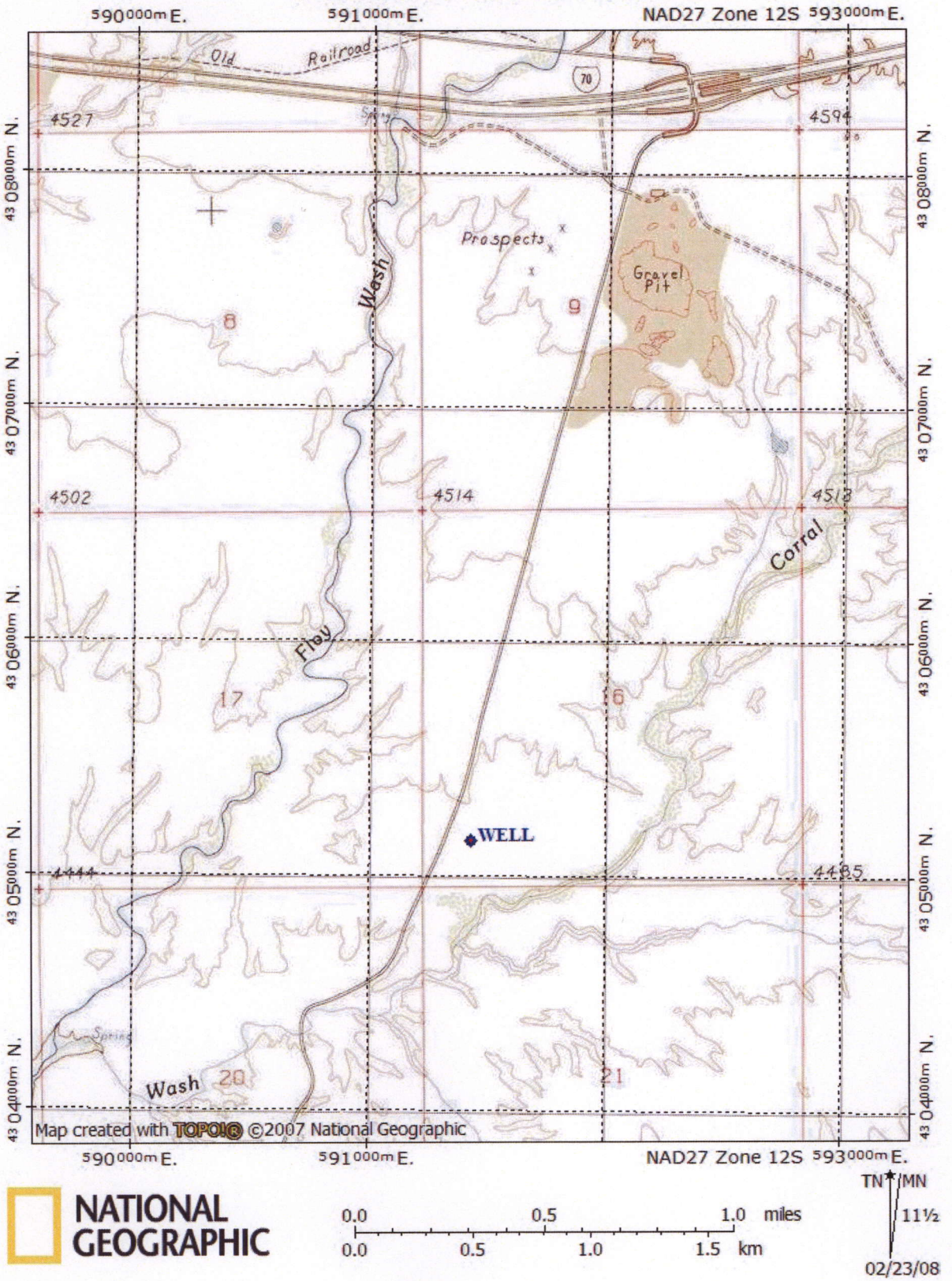
SURVEY RESULTS: Invertebrate [ ] Plant [ ] Vertebrate [ ] Trace [ ] No Fossils Found [X].
There is a potential for invertebrate fossils. Several pieces of aragonite were found that may be fragments of a large pelecypod (Bivalve) shell. This was not recorded as a fossil locality.

PALEONTOLOGY SENSITIVITY: HIGH [ ] MEDIUM [ ] LOW [X] (PROJECT SPECIFIC)
The Mancos shale is known for its many invertebrate fossils and some of these could be encountered during construction. They are not of significant importance. Vertebrates are rare in the Mancos.

MITGATION RECOMMENDATIONS: NONE [ ] OTHER [ ] (SEE BELOW)
No recommendations are being made for this well location concerning paleontology.

PALEONTOLOGIST: Alden H. Hamblin
A.H. Hamblin Paleontological Consulting, 3793 N. Minersville Highway, Cedar City, Utah 84720 (435) 867-8355
Utah State Paleontological Permit # 07-355, BLM paleontological Resources Permit # UT-S-05-02. Utah Professional Geologist License – 5223011-2250.

Cactus Rose Unit #16-24-22-18



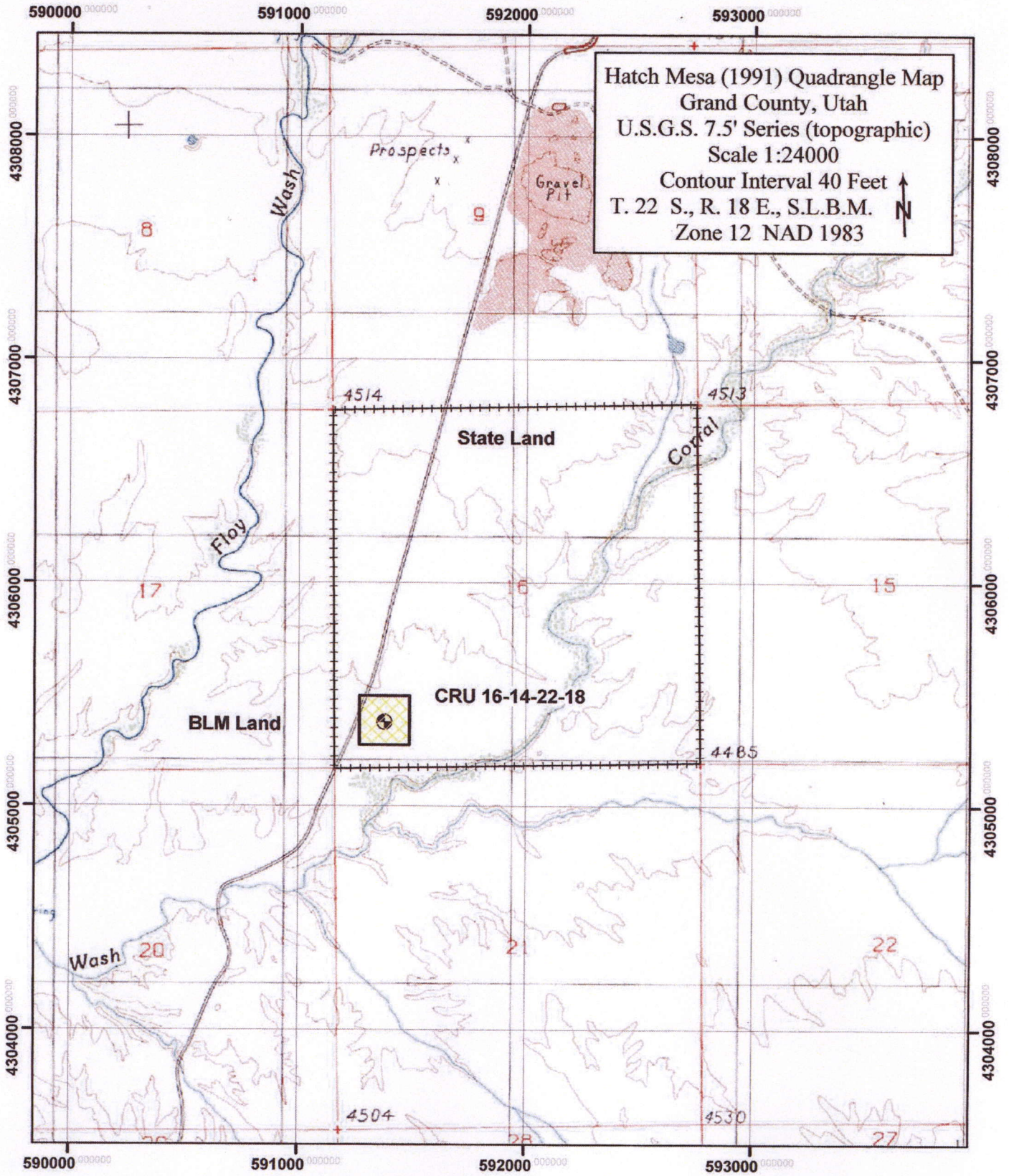


Figure 1. Project location map (1 of 2) for the Class III cultural resources inventory for two proposed well locations in Grand County, Utah for Wolcott, LLC. Areas surveyed are highlighted. [Utah #U-08-GB-0025bs, GRI Project #2807, 2/26/08]

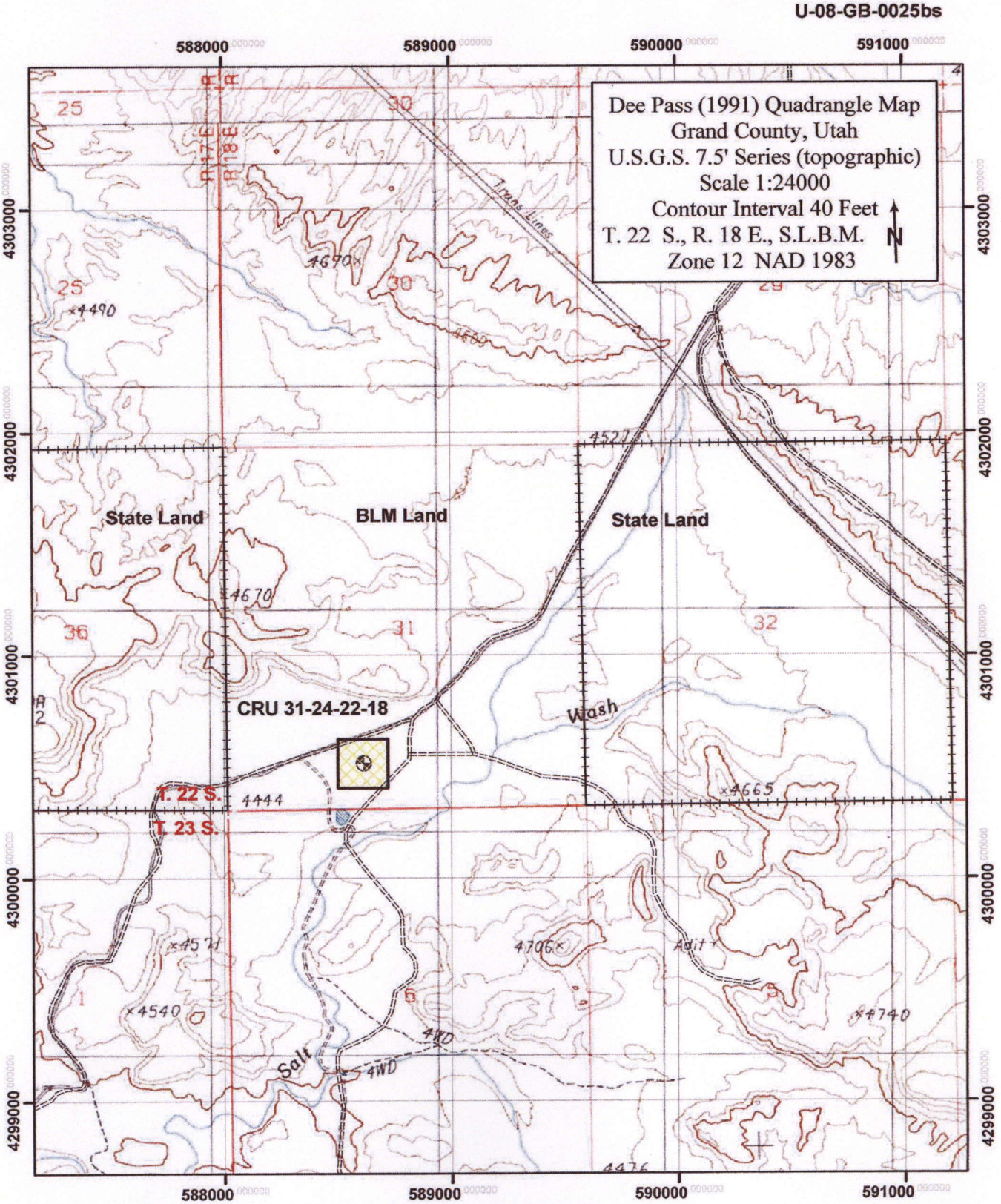


Figure 2. Project location map (2 of 2) for the Class III cultural resources inventory for two proposed well locations in Grand County, Utah for Wolcott, LLC. Areas surveyed are highlighted. [Utah #U-08-GB-0025bs, GRI Project #2807, 2/26/08]

CLASS III CULTURAL RESOURCE INVENTORY REPORT
FOR THE
PROPOSED STATE CRU 16-14-22-18 AND FEDERAL CRU 31-24-22-18
WELL LOCATIONS
IN GRAND COUNTY, UTAH,
FOR
NORTH AMERICAN EXPLORATION, LLC

Declaration of Positive Findings

GRI Project No. 2807
27 February 2008

Prepared by

Grand River Institute
P.O. Box 3543
Grand Junction, Colorado 81502
BLM Antiquities Permit No. 07-UT-54939
UDSH Project Authorization No. U08-GB-0025bs

Carl E. Conner, Principal Investigator

Submitted to

Bureau of Land Management
Moab Field Office
82 East Dogwood
Moab, Utah 84532

School and Institutional
Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

Management Summary

Grand River Institute conducted a Class III cultural resources inventory for the proposed State CRU 16-14-22-18 and Federal CRU 31-24-22-18 well locations in Grand County, Utah, for North American Exploration, LLC under Bureau of Land Management (BLM) Antiquities Permit No. 07-UT-54939 and Utah Division of State History (UDSH) Project Authorization No. U08-GB-0025bs. This work was done to meet requirements of Federal and State laws that protect cultural resources. Files searches conducted through the UDSH on 23 January 2008 and at the BLM on 20 February 2008 indicated no cultural resources were previously recorded in the study area. Fieldwork was performed on 20 February 2008. A total of about 20 acres (BLM 10 acres and State 10 acres) was inspected. One recent historic herder camp, (42GR3968) was recorded near the Federal well location. It was field evaluated as non-significant and not eligible for listing on the National Register of Historic Places. No cultural resources were found in the State land study block. Accordingly, archaeological clearance is recommended.

Table of Contents

List of Figures and Plates

Introduction

Grand River Institute conducted a Class III cultural resources inventory for the proposed State CRU 16-14-22-18 and Federal CRU 31-24-22-18 well locations in Grand County, Utah, for North American Exploration, LLC under Bureau of Land Management (BLM) Antiquities Permit No. 07-UT-54939 and Utah Division of State History (UDSH) Project Authorization No. U08-GB-0025bs. Files searches conducted through the UDSH on 23 January 2008 and at the BLM on 20 February 2008 indicated no cultural resources were previously recorded in the study area. Field work was performed on 20 February 2008. A total of about 20 acres (BLM 10 acres and State 10 acres) was inspected. The survey was conducted by and report was prepared by Carl E. Conner and Barbara J. Davenport of Grand River Institute. The Federal well location had no snow at the time of inspection, and the State location had less than 25% snow cover (Plates 1 and 2).

This study provides an inventory to identify cultural resources within previously unsurveyed areas likely to be affected by the proposed project, to relocate previously recorded sites, to evaluate their eligibility to the National Register of Historic Places (NRHP), and to make recommendations for the sites found to be eligible. For federally funded or licensed projects, such studies are done to meet requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321), Executive Order 11593 (36 F.R. 8921), the Historical and Archaeological Data-Preservation Act (AHPA) of 1974 (16 U.S.C. 469), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701), the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa et seq., as amended). For projects located on State land, surveys are conducted to meet requirements of Utah Code, Title 9, Chapter 8. These laws are concerned with the identification, evaluation, and protection of fragile, non-renewable evidences of human activity, occupation and endeavor reflected in districts, sites, structures, artifacts, objects, ruins, works of art, architecture, and natural features that were of importance in human events. Such resources tend to be localized and highly sensitive to disturbance.

Location of Project Area

The State CRU 16-14-22-18 is in T.22S., R.18E., Section 16, SW¼ SW¼; and the Federal CRU 31-24-22-18 is in T.22S., R.18E., Section 31, SE¼ SW¼; SLBM (Figures 1 and 2). These discrete study blocks lie approximately 8 miles and 11 miles (respectively) southwest of Crescent Junction, Utah, in Grand County.

Environment

The study area for the Federal CRU 31-24-22-18 well location is located along the

Plate 1. Overview of proposed State CRU 16-14-22-18 from near SW corner showing snow cover.

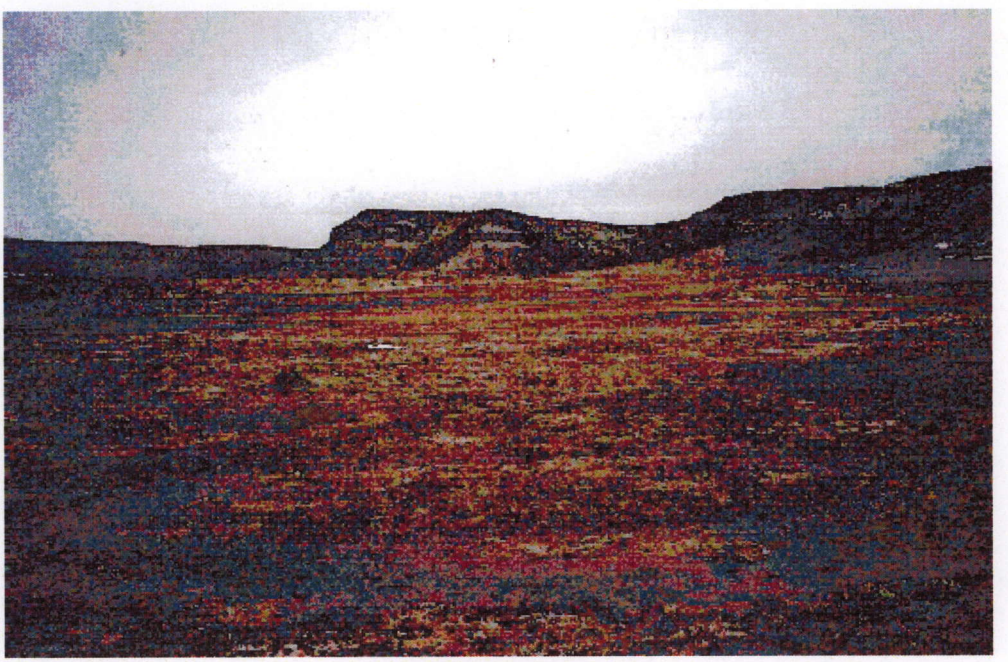


Plate 2. Overview of road area and southwest portion of the proposed Federal CRU 31-24-22-18 showing snow cover.

Figure 1. Project location map.

Figure 2. Project location map.

eastern border of the Green River Desert, a major physiographic subdivision of the Colorado Plateau. The Desert is bordered by the Mancos Shale lowlands on the northeast, the San Rafael Swell on the northwest, the Canyonlands on the southeast and the Henry Mountains on the southwest. Sedimentary rocks of Cretaceous and Jurassic-age are exposed along this northern portion (Rigby 1976:xi). The Morrison Formation is the bedrock in this discrete study area. Notably, the Morrison contains deposits of black, red, white and green cherts, agate, jasper, and chalcedony that was used for toolstone by the prehistoric peoples. Nearby is the basal conglomerate of the Dakota Sandstone which is known to contain cobbles of black, dove gray, or white chert up to three inches in diameter. It also contains an orthoquartzite that is fine to medium grained and moderately silicified with angular quartz grains.

The study block for the proposed State CRU 16-14-22-18 is located in the Mancos Shale Lowlands near their border with the Green River Desert. They are best described as badlands, and consist of Upper Cretaceous-age deposits of the once-extant Mancos Sea. The study block is entirely gray clayey, shaley deposits.

Elevations in the project blocks range from 4460-4480 feet. Both are in broad open areas near small washes. The State well is just north of Corral Wash and the Federal well is north of Salt Wash. Soils encountered at the former are very clayey (gray), and at the latter are gravelly and clayey (maroon) with a thin layer of shallow sandy deposits on the low rise where the well location is staked. They are formed in residuum from the underlying formations. A desert saltbush community is predominate. Regional faunal inhabitants include pronghorn, deer, elk, black bear, coyote, mountain lion, cottontails, prairie dogs, and raptors.

A cool, mid-latitude steppe climate prevails. Annual precipitation of this elevation range is between 10 and 14 inches. Temperatures range from 100°F in the summer to -10°F in January. Paleoenvironmental data are scant, but it is generally agreed that gross climatic conditions have remained fairly constant over the last 12,000 years. However, changes in effective moisture, and cooling-warming trends probably affected the prehistoric occupation of the region.

Files Search

Files searches conducted through the UDSH on 23 January 2008 and at the BLM on 20 February 2008 indicated no cultural resources were previously recorded in the study areas. Significantly, in four sections that include and are near the State well, eight projects had been conducted and no cultural resources had been encountered. In contrast, in four section that include and are near the Federal well, eight projects had been completed and 13 sites were previously recorded. Six sites (42GR2057, 42GR2058, 42GR2059, 42GR2061,

42GR2062 and 42GR2826) are within about 0.5 mile of the Federal well. The first five of those were recorded as part of a seismic project UDSH No. U84-08-443b,p; and the latter was recorded as part of project UDSH No. U98-FE-0094b. Sites in the area include prehistoric open camps and historic/modern herder camps.

Regional archaeological studies suggest nearly continuous human occupation or use of the region for at least 10,000 years and include manifestations of the Early Prehistoric Paleoindian, big-game hunting peoples (ca. 11,000 - 6500BC) ; the Middle Prehistoric Archaic hunter/gatherer groups (ca. 6,500-400BC); the Late Prehistoric Formative horticulturalists/foragers (ca. 400BC - AD1300), the pre-horse hunter/gatherers (Early Numic, ca. AD1300 - AD1700), the early historic horse-riding nomads (Late Numic, ca. AD1650 - AD1800); and, the Historic tribes (Ute, Piute, ca. AD1800 - AD1920). Historic records indicate occupation or use by EuroAmerican trappers, settlers, miners, and ranchers as well. Overviews of the prehistory and history of the region are provided in the Utah BLM Cultural Resource Series No. 5: *Sample Inventories of Oil and Gas Fields in Eastern Utah* (Nickens and Larralde 1980); in the Cultural Resource Series No. 22: the *Tar Sands Project: An Inventory and Predictive Model for Central and Southern Utah* (Tipps 1988); and, in the *BLM Grand Resource Area Class I Cultural Resource Inventory* (Horn et al. 1994).

Study Objectives

The purpose of the study was to identify and record all cultural resources within the area of potential impact and to assess their significance and eligibility to the National Register of Historic Places (NRHP). Paleontological resources were also considered in the inspection. However, a final evaluation of those resources must be provided by a paleontologist permitted by the State of Utah.

Field Methods

A Class III, 100% pedestrian, cultural resources survey of the proposed 10-acre block areas was made by a two-person crew walking east-west transects spaced at 15 meter intervals.

Cultural resources were sought as surface exposures and were characterized as sites or isolated finds. Sites were defined as discrete loci of patterned activity greater than 50 years of age and consisting of 5 or more prehistoric artifacts with or without features or over 50 historic artifacts with associated features. Also, a single isolated hearth with no other associated artifacts or features was to be recorded as a site. Isolated finds were defined as less than 5 artifacts without associated features; historic trash dumps without associated features; single core reduction events with a single core and associated reduction debitage;

single pot drops where the sherds are from a single vessel; or prospector pits with/or without artifacts and no associated historic structures or features.

Environmental constraints which might be expected included previous natural ground disturbance that has modified the surface so extensively that the likelihood of finding cultural resources is negligible; human activity within the past 50 years that has created a new land surface such that all traces of cultural resources have been eradicated; natural environmental characteristics that are unfavorable to the presence of historic properties; slopes greater than 30% where no potential for rock shelter, rock art, or other cultural properties associated with rock faces or ledges exist; and areas with 100% vegetation coverage.

All cultural resources that qualified as sites (such as prehistoric open camps, lithic scatters, occupied overhangs, rockshelters, and evidence of historic occupation) or isolated finds were to be recorded as they were encountered to standards set by the Utah Division of State History. Recording of the cultural manifestations during this project was completed using the following methods of mapping and note taking. The basic approach to the data collection was the continuous mapping of observed artifacts by recording UTM coordinates (NAD 83 Datum) using a Trimble Geo XT. Then, the site map was created using corrected GPS data and ArcMap. Photographs were taken at the site and include general views and specific artifacts. No temporally diagnostic artifacts were observed, and no artifacts were collected. Field notes for this project are on file at Grand River Institute.

Study Findings and Management Recommendations

As expected, cultural resources were encountered during the inventory. One historic herder camp (42GR3968) was recorded in the Federal study block. No cultural resources were encountered within the State lands study area. Appendix A contains site location data and a map showing the relationship between the resource and the potential area of direct impact. For additional information, refer to the IMACS form in Appendix A (on file at the Utah Division of State History). After a discussion of site significance evaluation, this portion of the report briefly describes the site and provides a field evaluation.

Site Significance

Significance is a quality of cultural resource properties that qualifies them for inclusion in the National Register of Historic Places (NRHP). The statements of significance included in this report are field assessments to support recommendations to the State Historic Preservation Officer (SHPO). The final determination of site significance is made by the controlling agency in consultation with the SHPO and the Keeper of the Register.

The Code of Federal Regulations was used as a guide for the in-field site evaluations. Titles 36 CFR 50, 36 CFR 800, and 36 CFR 64 are concerned with the concepts of

significance and (possible) historic value of cultural resources. Titles 36 CFR 65 and 36 CFR 66 provide standards for the conduct of significant and scientific data recovery activities. Finally, Title 36 CFR 60.4 establishes the measure of significance that is critical to the determination of a site's NRHP eligibility, which is used to assess a site's research potential:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and **a)** that are associated with events that have made a significant contribution to the broad patterns of history; or **b)** that are associated with the lives of persons significant in our past; or **c)** that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or **d)** that have yielded, or may be likely to yield, information important in the prehistory or history.

Site Description

Site **42GR3968** is an historic herder camp that is situated at the nose of a low rise in the canyon floor near a small reservoir at an elevation of 4480 feet. Shallow sandy soils are on the low rise, and gravelly clayey soils surround it. Vegetation is desert saltbush (shadscale) community.

The site is roughly 15m in diameter. It consists of two small cairns on top of the low rise and a crude chimney set on two small boulders at the base of the low cliff that forms the south face of the rise. The cairns are made of sandstone clasts that range in size from about 15cm diameters to about 40cm, which are stacked to a height of 50cm. The west one (.1) contains more and larger rocks so it is about 80cm in diameter, and the east one (.2) is slightly smaller with a 60cm diameter. The west one has in association a broken chunk of red chert, but it does not appear to have prehistoric origins. The crude chimney lies on the south side of the sandstone ledge, below the two cairns. It consists of a domed collection of small sandstone clasts with a hole formed in its top, that is situated on top of two large rocks. The chimney is about 60cm in diameter and about 30cm tall. A small herders stove could have been placed in the cavity formed by the two large rocks and its pipe run up through the hole. These rock features probably represent a herders camp from an historic period, but no diagnostics were present to confirm that assumption. Modern bottle glass and remnant clay pidgeon material is present at the base of the rock ledge that was broken by target practice (as confirmed by the associated spent lead), so it is difficult to assess the age of the features.

Evaluation and Management Recommendation

Since the site has not yielded and is unlikely to yield additional information important in the regional prehistory or history, it is field evaluated as non-significant and not eligible for

listing on the National Register of Historic Places. Accordingly, archaeological clearance is recommended for the project.

References

Horn, J., Alan Reed, and Susan Chandler

1994 Grand Resource Area Class I Cultural Resource Inventory. Ms on file Bureau of Land Management Grand Field Office, Moab.

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1980 Archaeological inventory in the Seep Ridge Cultural Study Tract, Uintah County, Utah. In: Utah BLM Cultural Resource Series No. 11. Bureau of Land Management, Salt Lake City.

Nickens, Paul R. and Signa L. Larralde

1980 Archaeological inventory in the Red Wash Cultural Study Tract, Uintah County, Utah. In: Sample Inventories of Oil and Gas Fields in Eastern Utah, Utah BLM Cultural Resource Series No. 5. Bureau of Land Management, Salt Lake City.

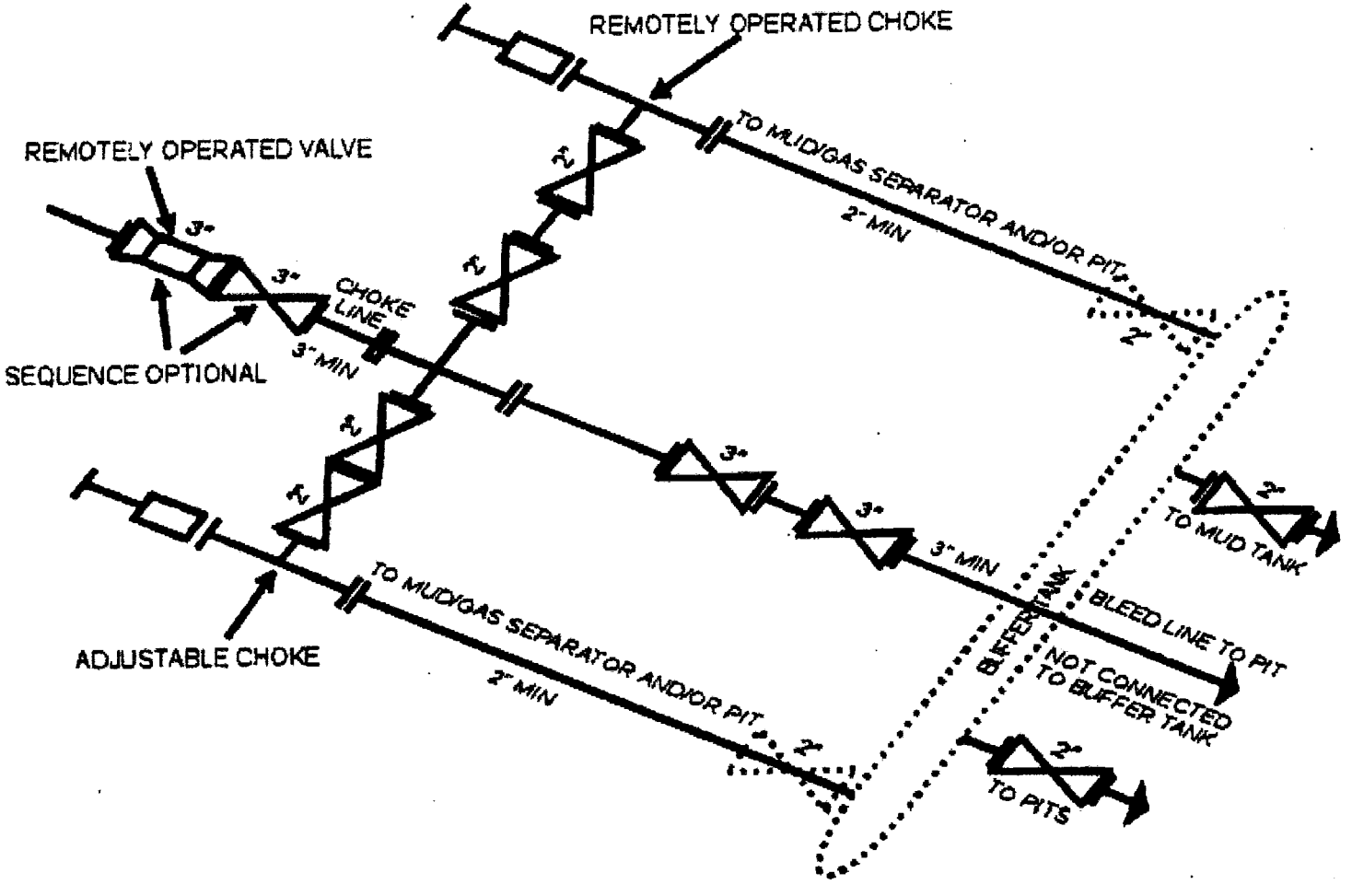
Rigby, J. Keith

1976 Northern Colorado Plateau. Kendall/Hunt Publishing Company. Dubuque.

Tipps, Betsy L.

1988 Tar Sands Project: An Inventory and Predictive Model for Central and Southern Utah, Utah BLM Cultural Resource Series No. 5. Bureau of Land Management, Salt Lake City.

APPENDIX A: Cultural Resources Location Data and IMACS Site Form

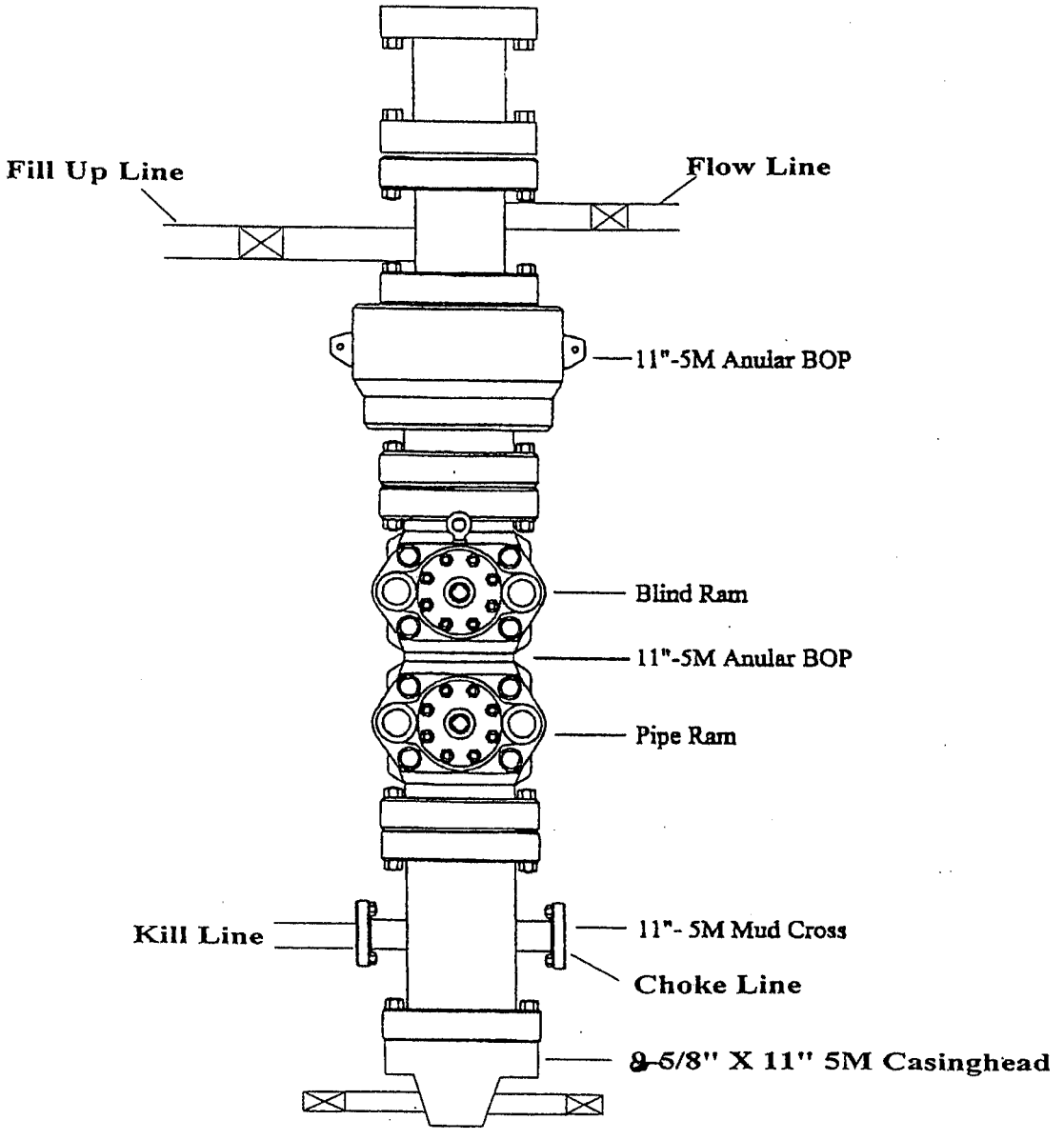


5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

PROPOSED 5M BOP EQUIPMENT DIAGRAM

Cactus Rose Unit (CRU) 16-14-2218

SWSW Section 16-T22S-R18E



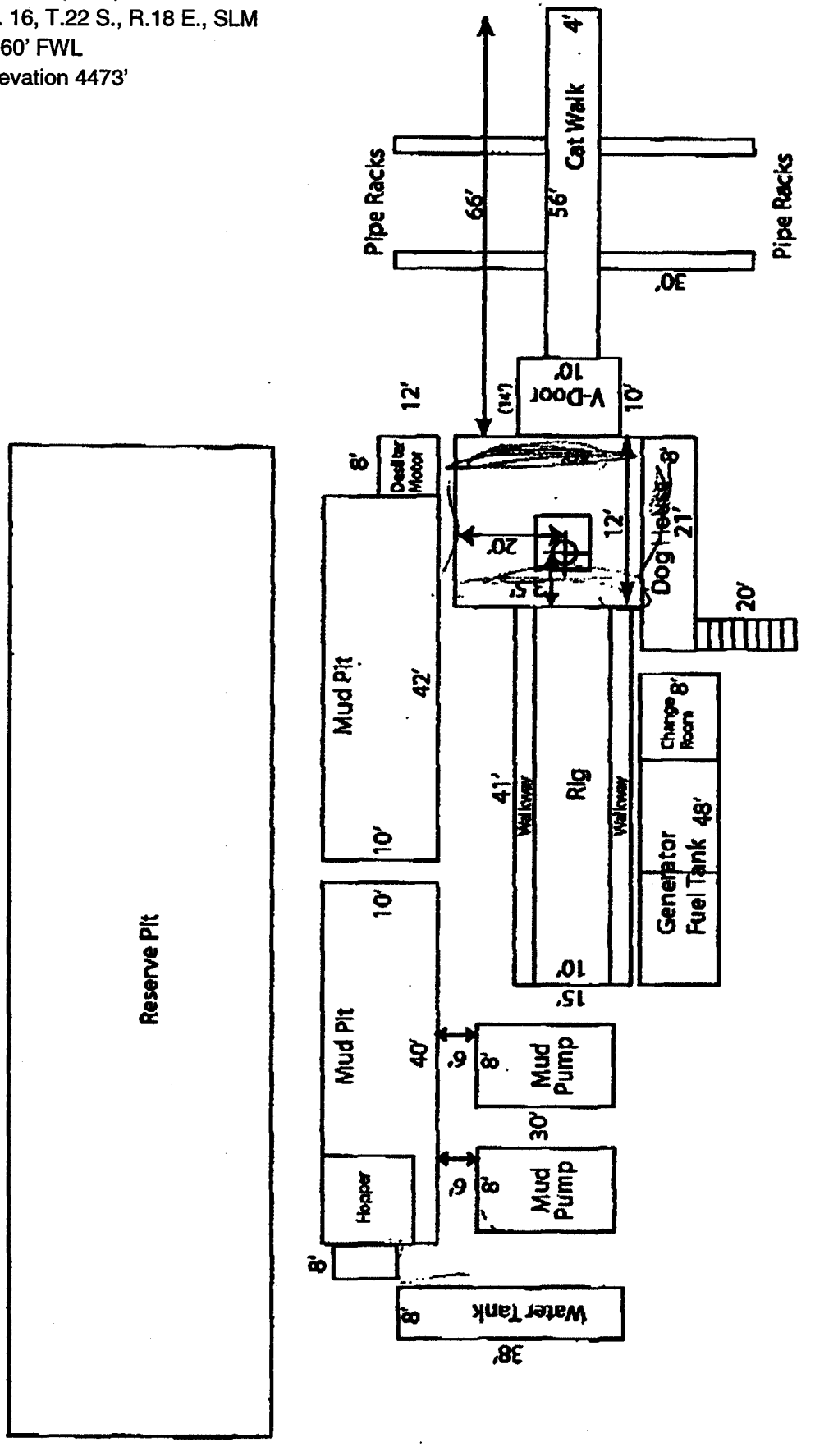
NORTH AMERICAN EXPLORATION LLC

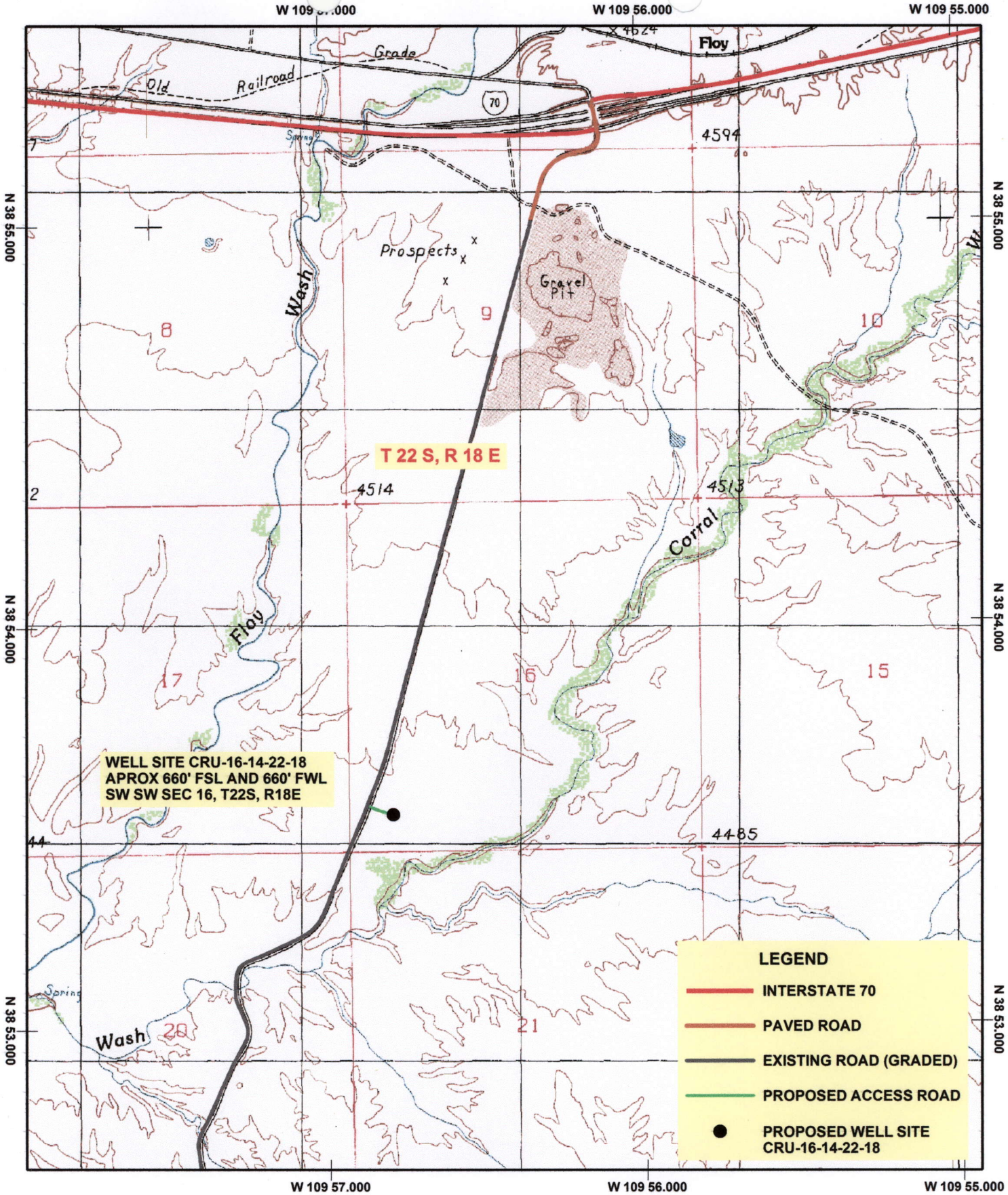
5M system:

- Annular preventer
- Pipe ram, blind ram, and, if conditions warrant, as specified by the authorized officer, another pipe ram shall also be required
- A second pipe ram preventer shall be used with a tapered drill string
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 3-inch minimum diameter, kill side shall be at least 2-inch diameter)
- 3 inch diameter choke line
- 2 choke line valves (3 inch minimum)
- Kill line (2 inch minimum)
- 2 chokes with 1 remotely controlled from rig floor
- 2 kill line valves and a check valve (2 inch minimum)
- Upper kelly cock valve with handle available
- When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed)
- Lower kelly cock valve with handle available
- Safety valve(s) and subs to fit all drill string connections in use
- Inside BOP or float sub available
- Pressure gauge on choke manifold
- All BOPE connections subjected to well pressure shall be flanged, welded, or clamped
- Fill-up line above the uppermost preventer.

Generic Drilling Pad Layout

Cactus Rose Unit (CRU) 16-14-2218
SWSW Sec. 16, T.22 S., R.18 E., SLM
660' FSL – 660' FWL
Ungraded Elevation 4473'





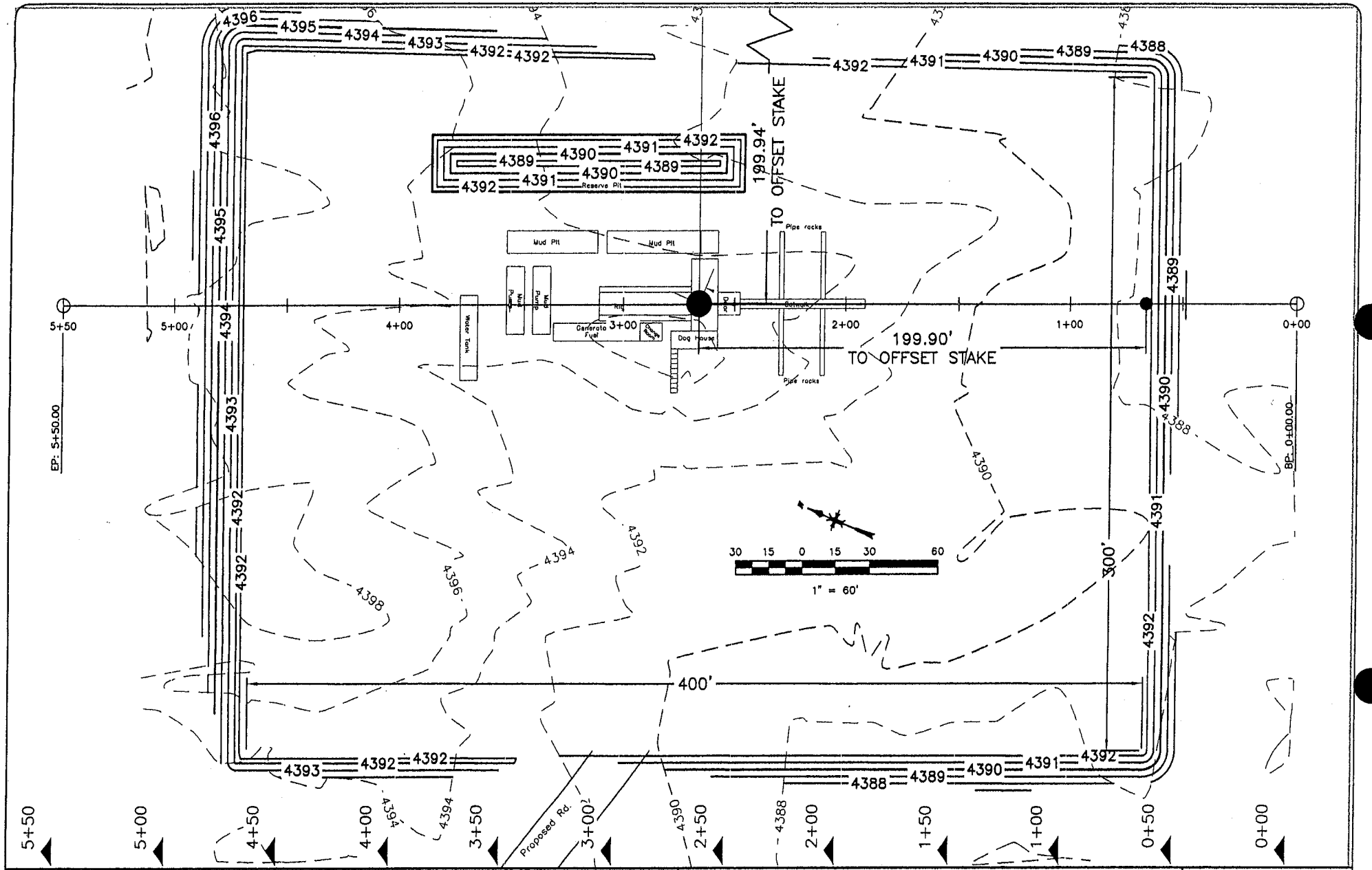
PORTIONS OF THE HATCH MESA
USGS 1:24,000 QUADRANGLE
DATUM: NAD83
PROJECTION: UTM
LATITUDE-LONGITUDE (NAD83)
DECIMAL MINUTE GRID

0 1000 2000 feet

0 0.5 1 miles

SCALE 1:24,000 1" = 2000'

NORTH AMERICAN EXPLORATION, LLC
PROPOSED WELL SITE CRU-16-14-22-18
SW SW SEC 16, T. 22 S., R. 18 E.
GRAND COUNTY, UTAH
JANUARY, 2008



ENGINEERING DESIGN SERVICES BY
DMC DEL-MONT CONSULTANTS, INC.
ENGINEERING • SURVEYING • PLANNING
125 Columbine Ave • Montrose, CO 81401 • (970) 249-7751 • (970) 249-2342 fax
www.del-mont.com • service@del-mont.com

FIELD SURVEYING SERVICES BY
SOUTHWEST LAND SURVEYING LLC
1315 Snowden St., Silverton, CO 81433
(970) 387-0600...Silverton (970) 874-2880...Delta
(970) 874-0892...fax EMAIL: kennschi@wol.com

WELL PAD TEMPLATE (400x300) 3 1 SIDES
RIG TEMPLATE BLACKHAWK (BLACK GOLD EQUIPMENT NT RIG 20X)

DESIGNED BY: SNS
SCALE: AS NOTED
CHECKED BY: SNS
FILE NAME: 08021C_CRU_16-14-18-22

DRILL PAD GRADING PLAN

CRU 16-14-22-18

T22S, R9E, Section 16; S,L,B&M Grand County, Utah

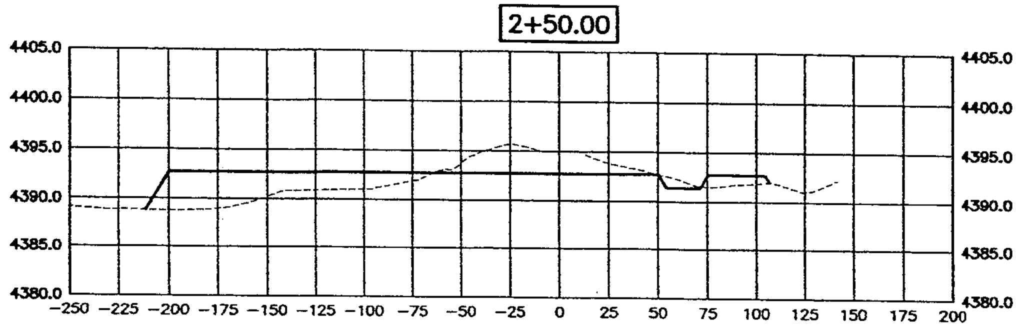
D.M. JOB NO: 08021
DATE ISSUED: 2008-02-18
SHEET: 2

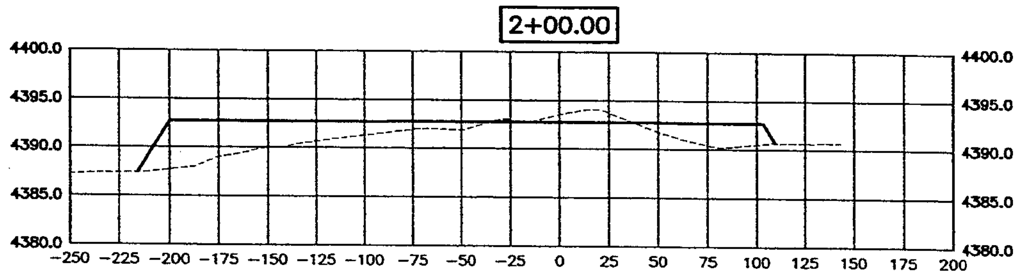
SITE CROSS SECTIONS

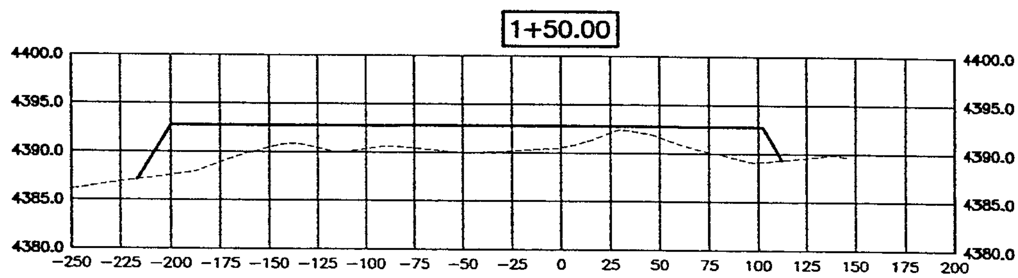
CRU 16-14-22-18

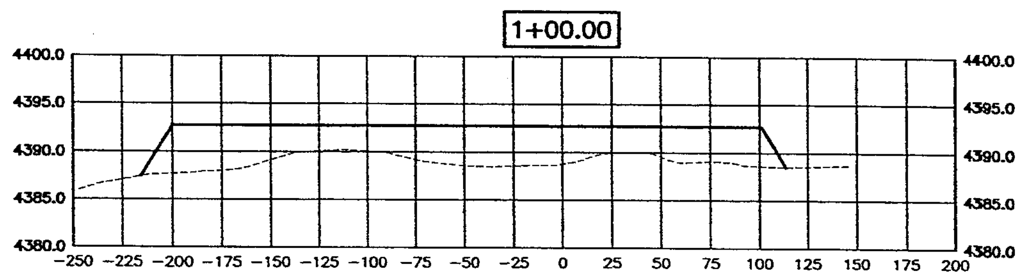
T22S, R9E, Section 16; S.L.B&M

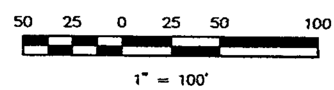
Grand County, Utah

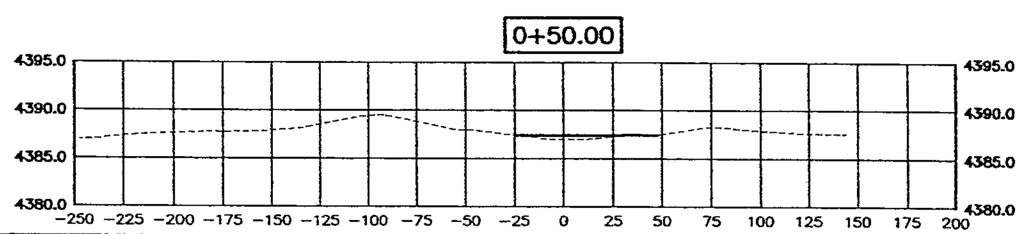










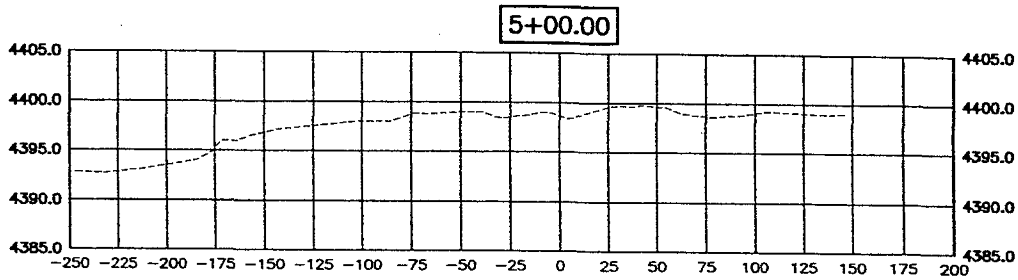


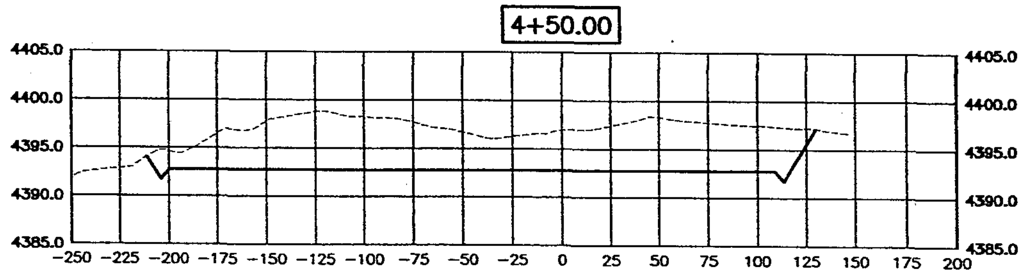
ENGINEERING DESIGN SERVICES BY
DMC
DEL-MONT CONSULTANTS, INC.
ENGINEERING • SURVEYING • PLANNING

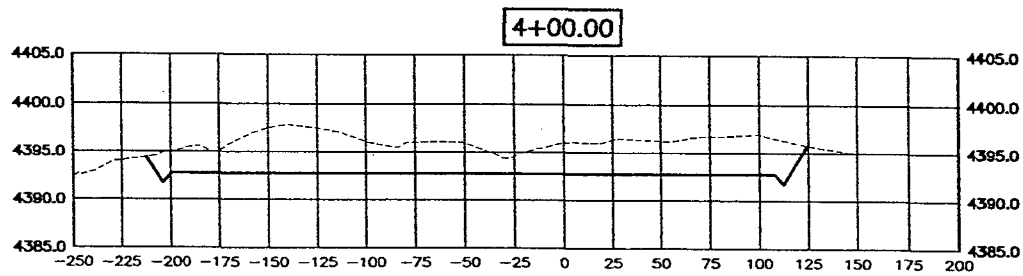
FIELD SURVEYING SERVICES BY
SOUTHWEST LAND SURVEYING LLC

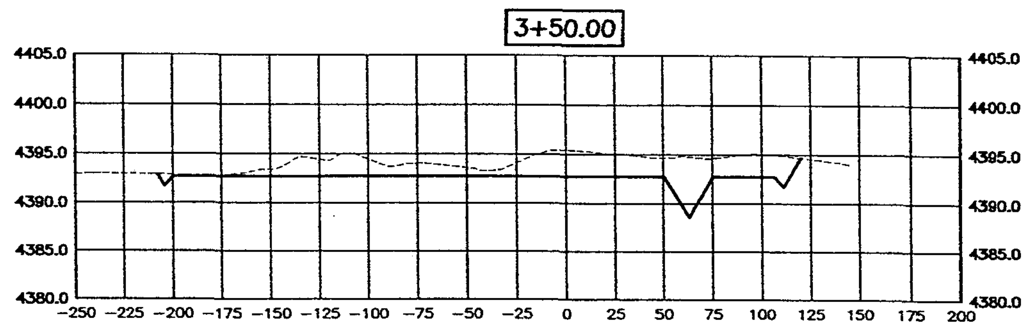
WELL PAD TEMPLATE (400x300) 3:1 SIDES
RIG TEMPLATE BLACKHAWK (BLACK GOLD EQUIPMENT NT RIG 20X)

DESIGNED BY	SNS
CHECKED BY	SNS
SCALE	AS NOTED
FILE NAME	08021C_CRU_16-14-18-22
D.M. JOB NO	08021
DATE ISSUED	2008-02-18
SHEET	3



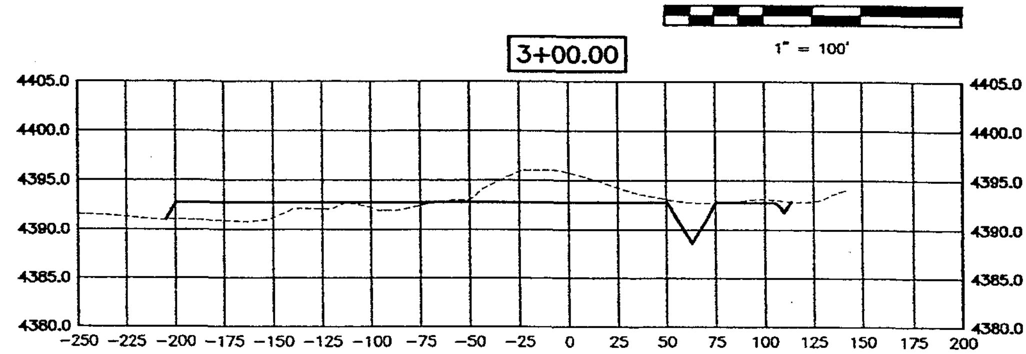






50 25 0 25 50 100

1" = 100'



ENGINEERING DESIGN SERVICES BY
DEL-MONT CONSULTANTS, INC.
ENGINEERING • SURVEYING • PLANNING

FIELD SURVEYING SERVICES BY
SOUTHWEST LAND SURVEYING LLC
1315 Snowden St. Silverton, CO 81433

WELL PAD TEMPLATE
RIG TEMPLATE BLACKHAWK
(400x300) 3:1 SIDES
(BLACK GOLD EQUIPMENT NT RIG 20X)

DESIGNED BY	SNS
CHECKED BY	SNS
SCALE	AS NOTED
FILE NAME	08021C_CRU_16-14-18-22

SITE CROSS SECTIONS

CRU 16-14-22-18

T22S, R9E, Section 16; S.L.B&M

Grand County, Utah

D.M. JOB NO	08021
DATE ISSUED	2008-02-18
SHEET	4

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 02/26/2008

API NO. ASSIGNED: 43-019-31571

WELL NAME: CRU 16-14-2218

OPERATOR: NAE, LLC (N3440)

PHONE NUMBER: 303-327-7145

CONTACT: ROBERT PECK

PROPOSED LOCATION:

SWSW 16 220S 180E

SURFACE: 0685 FSL 0685 FWL

BOTTOM: 0685 FSL 0685 FWL

COUNTY: GRAND

LATITUDE: 38.89241 LONGITUDE: -109.9457

UTM SURF EASTINGS: 591437 NORTHINGS: 4305158

FIELD NAME: WILDCAT (1)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	4/10/08
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML46664

PROPOSED FORMATION: CHIN

SURFACE OWNER: 3 - State

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 8030575893)

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 04271)

N RDCC Review (Y/N)
(Date:)

NA Fee Surf Agreement (Y/N)

NA Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: CACTUS ROSE

✓ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

___ Drilling Unit
Board Cause No:
Eff Date:
Siting:

___ R649-3-11. Directional Drill

COMMENTS: Needs Presite (03-18-08)

STIPULATIONS: 1- Spacing Slip
2- STATEMENT OF BASIS

OPERATOR: NAE LLC (N3440)

SEC: 16 T.22S R. 18E

FIELD: WILDCAT (001)

COUNTY: GRAND

SPACING: R649-3-2 / GENERAL SITING

Field Status
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

Unit Status
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Wells Status
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING

UTAH DNR
OIL, GAS & MINING

N
W E
S

PREPARED BY: DIANA MASON
DATE: 27-FEBRUARY-2008

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
700	43-019-31571-00-00		OW	S	No

Operator NAE, LLC **Surface Owner-APD**
Well Name CRU 16-14-2218 **Unit** CACTUS ROSE
Field WILDCAT **Type of Work**
Location SWSW 16 22S 18E S 685 FSL 685 FWL GPS Coord (UTM) 591437E 4305158N

Geologic Statement of Basis

Significant volumes of high quality ground water are unlikely to be encountered in the bedrock at this location. A poorly permeable soil is likely to be developed on the Blue Gate Member of the Mancos Shale. A small but locally important quality ground water resource may be encountered in several permeable Mesozoic aquifers in this area. The proposed casing, cementing and drilling fluid program should adequately isolate any zones of fresh water that may be penetrated. No underground water rights have been filed on any area within a mile of the proposed well site.

Chris Kierst — 4/8/2008
APD Evaluator — **Date / Time**

Surface Statement of Basis

Bart Kettle-Division of Oil, Gas and Mining (DOGM), Ed Bonner-Trustlands Administration (SITLA), Kyle Beagley-Division of Wildlife Resources (DWR), Erik Larsen-NEA LLC, Jim Jones-NEA LLC, Newt Burkhalter-NEA LLC, Larry Johnson-Talon Resources, Gary Smith-Black Gold Drilling, Mike Davis-S&S Bulldozing. Invited but choosing not to attend: Liz Thomas-Southern Utah Wilderness Alliance (SUWA).

Access has been moved, entering well pad from the north addressing concerns regarding rig traffic meeting traffic south bound on Grand County Road 147 at base of blind hill. Signs should be posted as deemed necessary to warn County Road traffic of rig activities.

Well pad is large in relation to drilling program. Well pad shall be reclaimed back to production size following the completion of drilling activities.

Proposed project is highly visible to the general public. Precautions shall be taken to keep the site clean and maintained in a workman like manner.

Bart Kettle — 3/18/2008
Onsite Evaluator — **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be reclaimed back following the completion of drilling activities to only those portions required for normal production activities.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	NAE, LLC						
Well Name	CRU 16-14-2218						
API Number	43-019-31571-0		**APD No** 700			**Field/Unit** WILDCAT	
Location: 1/4,1/4	SWSW	**Sec** 16	**Tw** 22S	**Rng** 18E	685 FSL 685 FWL		
GPS Coord (UTM)			**Surface Owner**				

Participants

Bart Kettle-DOGM, Ed Bonner-SITLA, Kyle Beagley-DWR, Erik Larsen-NEA LLC, Jim Jones-NEA LLC, Newt Burkhalter-NEA LLC, Larry Johnson-Talon Resources, Gary Smith-Black Gold Drilling, Mike Davis-S&S Bulldozing

Regional/Local Setting & Topography

Proposed project site is located roughly 17 miles southeast of the town of Green River, in Grand County Utah. Annual precipitation is 6-8", vegetation is extremely sparse at the project site, but would be described as salt scrub rangelands. Topography immediately adjacent to the well is a series of rolling clay hills. Drainage is to the west entering the Green River within 15 miles. No perennial water was observed in close proximity to the proposed project site. Drainages in the immediate area are ephemeral in nature, being dry throughout a majority of the year. On a regional setting the project is located in the western portions of the Cisco Desert, a region known for it's harsh growing conditions due to low precipitation, and poorly developed saline soils.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat

New Road Miles	Well Pad		Src Const Material	Surface Formation
0.01	**Width** 300	**Length** 350	Onsite	MNCS

Ancillary Facilities

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Flora

Grass: Indian rice grass
Forbs: Purple mustard, desert parsley, and halogeton
Shrubs: Mat saltbrush, Cisco wood aster
Trees: None

Fauna: Some small reptile and rodent use. Incidental use by kit fox and coyote, raptor hunting grounds.

Soil Type and Characteristics

Heavy gray clays recently eroded from shale's in the Mancos formation

Erosion Issues Y

Soils highly erosive from wind and water when disturbed, no mitigation recommended.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Low permeability	0
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
	Final Score	5 3 **Sensitivity Level**

Characteristics / Requirements

Closed Loop Mud Required? N **Liner Required?** N **Liner Thickness** **Pit Underlayment Required?** N

Other Observations / Comments

Access moved to the north due to safety concerns at staked location. Grand County Road 147 has experienced increased recreation and industrial traffic in past five years. Along with the increase in traffic and average speed vehicles are traveling has also increased. As staked access road leaves Grand County Road 147 at the base of a small hill, this will not give south bound traffic adequate time to react to rig traffic entering, leaving or parked along the county road.

A rather large pad is being proposed in relation to the drilling program. Following the completion of drilling activities well pad should be reclaimed back to production size of 175'x200'.

Proposed project is highly visible to the recreating public. Precautions should be taken to keep site clean and presentable.

Bart Kettle	3/18/2008
Evaluator	**Date / Time**

Utah Division of Water Rights

There are no features in the query area.

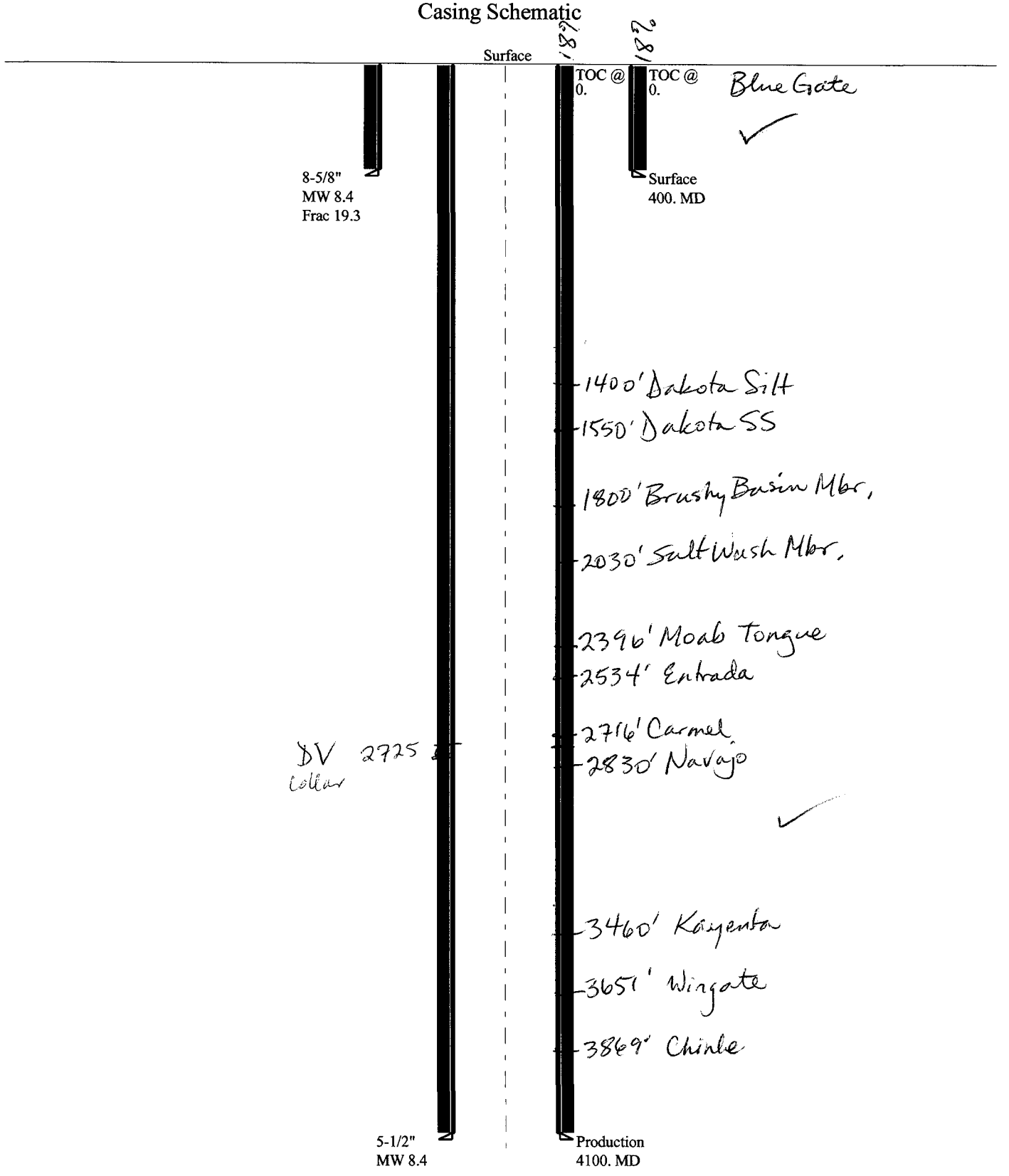
Click on the back button to try again

Please direct questions and comments regarding the map server to: leeeschler@utah.gov.

back close

2008-04 NAE CRU 16-14-2218

Casing Schematic



Well name:	**2008-04 NAE CRU 16-14-2218**
Operator:	**NAE LLC**
String type:	Surface
Project ID:	43-019-31571
Location:	Grand County

Design parameters:

Collapse
Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 352 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 400 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 350 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 81 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 290 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:
Next setting depth: 4,100 ft
Next mud weight: 9.000 ppg
Next setting BHP: 1,917 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 400 ft
Injection pressure: 400 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	400	8.625	24.00	J-55	ST&C	400	400	7.972	143

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	175	1370	7.849	400	2950	7.37	8	244	29.08 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Minerals
Phone: 801-538-5357
FAX: 801-359-3940
Date: April 9,2008
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 400 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**2008-04 NAE CRU 16-14-2218**
Operator:	**NAE LLC**
String type:	Production
Project ID:	43-019-31571
Location:	Grand County

Design parameters:

Collapse
Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 887 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 1,789 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 3,578 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 132 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: Surface

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	4100	5.5	17.00	N-80	LT&C	4100	4100	4.767	535.1

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1789	6290	3.516	1789	7740	4.33	61	348	5.72 J

Prepared by: Helen Sadik-Macdonald, Div of Oil,Gas & Minerals
Phone: 801-538-5357
FAX: 801-359-3940
Date: April 9,2008
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 4100 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

BOPE REVIEW — NAE CRU 16-14-2218 API 43-019-31571

INPUT

Well Name	NAE CRU 16-14-2218 API 43-019-31571			
	String 1	String 2		
Casing Size (")	8 5/8	5 1/2		
Setting Depth (TVD)	400	4100		
Previous Shoe Setting Depth (TVD)	40	400		
Max Mud Weight (ppg)	8.6	9		
BOPE Proposed (psi)	0	5000		
Casing Internal Yield (psi)	2950	7740		
Operators Max Anticipated Pressure (psi)	1834	8.6 ppg		

Calculations	String 1	8 5/8 "	
Max BHP [psi]	.052*Setting Depth*MW =	179	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	131	NO
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	91	NO
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	100	← NO Shallow depth
Required Casing/BOPE Test Pressure		400	psi
***Max Pressure Allowed @ Previous Casing Shoe =**		0	psi

Calculations	String 2	5 1/2 "	
Max BHP [psi]	.052*Setting Depth*MW =	1919	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	1427	YES
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	1017	YES ✓
			***Can Full Expected Pressure Be Held At Previous Shoe?**
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	1105	← NO
Required Casing/BOPE Test Pressure		4100	psi
***Max Pressure Allowed @ Previous Casing Shoe =**		400	psi

*Assumes 1psi/ft frac gradient

NORTH AMERICAN EXPLORATION LLC

303-327-7169 303-534-1400 110 16th Street, Suite 1220 • Denver, Colorado 80202 • www.naexp.com

Erik Larsen
North American Exploration, LLC
110 16th St., Ste. 1220
Denver, CO 80202

February 29, 2008

Earlene Russell
Bonding Technician
Utah Division of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Dear Earlene,

Attached is a designation of Agent/Operator Form for the well CRU 16-14-2118 located at T22S-R18E, Sec. 16, SW/4SW/4. The well is to be sited on the Utah Mineral Lease # ML 46664. The Operator EnCana Oil and Gas (USA) Inc., assigned operatorship to NAE, LLC on 02/28/2008.

If you have questions, please contact me at my office phone # 303-327-7144 or on my email at Elarsen@naexp.com

Sincerely,

Erik Larsen
Land/Environmental Specialist

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 5

DESIGNATION OF AGENT OR OPERATOR

The undersigned is, on record, the holder of oil and gas lease

LEASE NAME: UTAH STATE MINERAL LEASE

LEASE NUMBER: ML 46664

and hereby designates

NAME: NAE, LLC

ADDRESS: 110 16th Street, Ste. 1220

city Denver state CO zip 80202

as his (check one) agent ☑ / operator ☐, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to:

(Describe acreage to which this designation is applicable. Identify each oil and gas well by API number and name. Attach additional pages as needed.)

Township 22 South, Range 18 East
Section 16: SW/4SW/4
CRU 16-14-2218

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: 02/28/2008

BY: (Name) David G. Hill

(Signature) [signature]

(Title) Attorney-in-Fact

(Phone) (720) 876-5361

OF: (Company) EnCana Oil & Gas (USA) Inc.

(Address) 370 17th Street, Suite 1700

city Denver

state CO zip 80202

RECEIVED
MAR 17 2008
DIV. OF OIL, GAS & MINING

(5/2000)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

April 18, 2008

Memorandum

To: AFM-Resources, Moab Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Cactus Rose Unit
Grand County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2008 within the Cactus Rose Unit, Grand County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ Chinle)

43-019-31571 CRU 16-14-2218 Sec 16 T22S R18E 0685 FSL 0685 FWL

Our office approved a "Designation of Agent" from MSC Exp. LP to NAE, LLC on April 16, 2008. This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

bcc: File - Cactus Rose Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:4-18-08

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

April 24, 2008

NAE, LLC
110 16th St., Ste. 1220
Denver, CO 80202

Re: CRU 16-14-2218 Well, 685' FSL, 685' FWL, SW SW, Sec. 16, T. 22 South, R. 18 East, Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31571.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Grand County Assessor
Bureau of Land Management, Moab Office
SITLA

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

Operator: NAE, LLC

Well Name & Number CRU 16-14-2218

API Number: 43-019-31571

Lease: ML46664

Location: SW SW **Sec.** 16 **T.** 22 South **R.** 18 East

Conditions of Approval

1. **General**

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

   The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

   - 24 hours prior to cementing or testing casing – contact Dan Jarvis
   - 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
   - 24 hours prior to spudding the well – contact Carol Daniels
   - Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
   - Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

   The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

   - Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
   - Any changes to the approved drilling plan – contact Dustin Doucet

   The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

   - Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
   - Carol Daniels at: (801) 538-5284 office
   - Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

3. **Reporting Requirements**

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

February 10, 2009

Lynn Faust
NAE, LLC
110 16TH St., Ste. 1220
Denver, CO 80202

Re: APD Rescinded – CRU 16-14-2218, Sec.16, T.22S, R.18E
Grand County, Utah API No. 43-019-31571

Dear Ms. Faust:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on April 24, 2008. On January 28, 2009, you requested that the division rescind the approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective January 28, 2009.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
SITLA, Ed Bonner

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING